



STATE OF NEW HAMPSHIRE

DEPARTMENT OF TRANSPORTATION

**BEDFORD
X-A001(160), 16156**

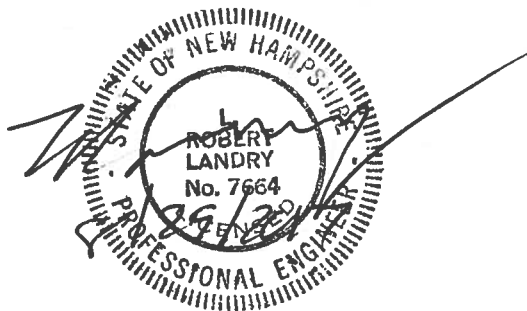
**THIS PROJECT INVOLVES CULVERT/SLIP LINE REHABILITATION FOR THE
BRIDGE CARRYING NH 114 OVER BOWMAN BROOK**

**NOTE: PLANS AND SPECIFICATIONS ON THIS PROJECT CANNOT BE
TRANSFERRED TO ANY OTHER FIRM OR ORGANIZATION FOR THE
PURPOSE OF SUBMITTING A BID AS A GENERAL CONTRACTOR
WITHOUT THE KNOWLEDGE AND AUTHORITY OF THE DEPARTMENT.**

NON-TRANSFERABLE: _____

GRAND TOTAL \$ _____

**Sample Proposal
NOT FOR BIDDING PURPOSES**



06/06/17

Supersedes 4/26/00, 12/23/02, 06/30/04, 10/26/09

BEDFORD

16156

August 29, 2017

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STATE OF NEW HAMPSHIRE
DEPARTMENT OF TRANSPORTATION

JOHN O. MORTON BUILDING
CONTRACT SECTION

INVITATION FOR BIDS

7 HAZEN DRIVE
POST OFFICE BOX 483
CONCORD, NH 03302

Proposals are to be submitted electronically via <https://icx.exevision.com/nhdot/icx/Index.aspx> by 2:00 o'clock PM, Eastern Time, on **THURSDAY, OCTOBER 5, 2017** for the following project:

BEDFORD

X-A001(160), 16156

**THIS PROJECT INVOLVES CULVERT/SLIP LINE REHABILITATION FOR THE BRIDGE CARRYING NH 114
OVER BOWMAN BROOK**

CERTIFIED CHECK/BID BOND: 5% OF THE BID AMOUNT

A schedule of the minimum wages for all labor classifications as determined by the Secretary of Labor pursuant to Section 115 of the Federal Aid Highway Act of 1956 is included in the proposal. Unskilled labor may be hired from lists prepared by the NH Dept. of Employment Security designated in the proposal.

BIDDERS SHOULD ACT PROMPTLY AND SUBMIT ALL QUESTIONS PERTAINING TO THE PROJECT IN WRITING TO VICTORIA CHASE AT Victoria.Chase@dot.nh.gov AT LEAST FIVE (5) BUSINESS DAYS BEFORE THE HOUR AND DATE SET FOR THE BID OPENING. NO PHONE CALLS OR FAXES WILL BE ACCEPTED.

Plans and specifications (**NOT FOR BIDDING PURPOSES**) may be seen at the at the Office of Const. Industries of MA, 1500 Providence Hwy., Suite 14, Norwood, MA; Assoc. General Contractors of NH, 48 Grandview Rd, Bow, NH; Construction Summary of NH, Inc., 734 Chestnut St., Manchester, NH; Works in Progress, 20 Farrell Street, Suite 103, So. Burlington, VT; Minuteman Press, 95 Brewery Lane, Portsmouth, NH; Signature Press & Blueprinting, Inc., 880 Candia Road Unit 7, Manchester, NH; and Infinite Imaging, 933 Islington Street, Portsmouth NH.

In order to be authorized to bid, the Department's Request for Proposal (RFP) form must be submitted to the Contract Office of the Department of Transportation. Once the RFP form has been approved, the Contractor is authorized to bid. At this time the password card will be issued allowing the Contractor access to the on-line bidding documents, including the Plans and Specifications. In addition, hard-copy Plans and Specifications can be obtained at the Contract Office of the Department of Transportation for THIRTY-FIVE DOLLARS (\$35.00) (**NON-REFUNDABLE**). An additional FIVE DOLLARS (\$5.00) will be charged for shipping fees (**NON-REFUNDABLE**). Checks should be made payable to "Treasurer, State of New Hampshire". Send check with Project Name and No. to the Dept. of Transportation, c/o Finance & Contracts, P.O. Box 483 Hazen Drive, Concord, NH 03302.

Proposals must be **submitted electronically** via <https://icx.exevision.com/nhdot/icx/Index.aspx> and received by the Department of Transportation as specified above no later than the date and time mentioned above, at which time they will be publicly opened and the results immediately posted on the Department's website. A certified check or bid bond shall be submitted electronically at the time of bid in the amount listed above, payable to, "Treasurer, State of New Hampshire," as security for the execution of the contract.

All individuals, firms, partnerships or corporations intending to bid, must file a statement showing their qualifications with the Dept. of Transportation on forms prepared for that purpose at least ten (10) days prior to opening of bids. No authorization to bid will be granted to a prospective bidder **not** prequalified.

Any information submitted as part of the Invitation to Bids may be subject to public disclosure under RSA 91-A. In addition, in accordance with RSA 9-F:1, any contract entered into as a result of the bid letting will be made accessible to the public online via the website Transparent NH (<http://nh.gov/transparentnh/>).

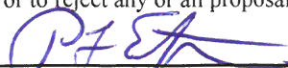
If contract price is \$35,000 or more, the successful bidder will be required to furnish electronically, at the time of bid submittal, a contract bond in the amount of One hundred (100) percent of their bid.

All bidders will be required to execute a sworn statement pursuant to Section 112(c) of Title 23 USC, certifying that he or she has not either directly or indirectly, entered into any agreement, participated in any collusion or otherwise taken any action in restraint of free competitive bidding in connection with such contract. Civil Rights Act of 1964, 78 Stat. 252, USC 2005d to 2005d-4 and Title 49, Code of Federal Regulations, Dept. of Transportation, Subtitle A, Office of the Secretary, Part 21, Nondiscrimination in Federally-assisted programs of the Dept. of Transportation issued pursuant to such Act, hereby notifies all bidders that it will affirmatively insure that in any contract entered into pursuant to this advertisement, minority business enterprises will be afforded full opportunity to submit bids in response to this invitation and will not be discriminated against on the grounds of race, color or national origin in consideration for an award.

The right is reserved to waive any informalities in or to reject any or all proposals.

SEPTEMBER 5, 2017

F



Peter E. Stamnas, P.E.
Director of Project Development

County: HILLSBOROUGH

Date Bids Open: 10/5/2017

Scope of Work: Culvert Slipline/Rehab for Redlist Bridge carrying NH 114 over Bowman Brook (Br No 151/151)

Location: NH 114

Completion Date: 10/26/2018

Proposal Guarantee: 5% of bid amount

| Item Number | Item Description | Unit | Estimated Quantity |
|----------------------|--|------|--------------------|
| BEDFORD 16156 | | | |
| Bridge | | | |
| 201.1 | CLEARING AND GRUBBING (F) | A | 0.10 |
| 201.881 | INVASIVE SPECIES CONTROL TYPE I | SY | 350.00 |
| 202.41 | REMOVAL OF EXISTING PIPE 0-24" DIAMETER | LF | 40.00 |
| 202.42 | REMOVAL OF EXISTING PIPE OVER 24" DIAMETER | LF | 30.00 |
| 202.7 | REMOVAL OF GUARDRAIL | LF | 390.00 |
| 203.11 | COMMON EXCAVATION - LRS | CY | 410.00 |
| 203.55543 | GUARDRAIL EAGRT OFFSET PLATFORM, TL 3 | U | 1.00 |
| 203.601 | EMBANKMENT-IN-PLACE | CY | 20.00 |
| 206.19 | COMMON STRUCTURE EXCAVATION EXPLORATORY | CY | 70.00 |
| 207.3 | UNCLASSIFIED CHANNEL EXCAVATION | CY | 370.00 |
| 209.201 | GRANULAR BACKFILL (BRIDGE) (F) | CY | 380.00 |
| 304.32 | CRUSHED GRAVEL FOR SHOULDER LEVELING | TON | 25.00 |
| 500.0201 | ACCESS FOR BRIDGE CONSTRUCTION | U | 1.00 |
| 500.0202 | ACCESS FOR BRIDGE CONSTRUCTION | U | 1.00 |
| 503.101 | WATER DIVERSION STRUCTURE | U | 1.00 |

| | | | |
|-----------|---|-----|-----------|
| 503.201 | COFFERDAMS | U | 1.00 |
| 503.202 | COFFERDAMS | U | 1.00 |
| 504.1 | COMMON BRIDGE EXCAVATION (F) | CY | 366.00 |
| 504.2 | ROCK BRIDGE EXCAVATION | CY | 273.00 |
| 508. | STRUCTURAL FILL | CY | 105.00 |
| 520.12 | CONCRETE CLASS A, ABOVE FOOTINGS (F) | CY | 38.00 |
| 520.213 | CONCRETE CLASS B, FOOTINGS (ON SOIL) (F) | CY | 66.00 |
| 520.32 | GROUTING VOIDS IN BACKFILL MATERIAL | CY | 10.00 |
| 534.3 | WATER REPELLENT (SILANE/SILOXANE) | GAL | 5.00 |
| 538.2 | BARRIER MEMBRANE, PEEL AND STICK - VERTICAL SURFACES (F) | SY | 10.00 |
| 541.4 | PVC WATERSTOPS, NH TYPE 4 (F) | LF | 44.00 |
| 544. | REINFORCING STEEL (F) | LB | 14,567.00 |
| 562.1 | SILICONE JOINT SEALANT (F) | LF | 53.00 |
| 583.5 | RIPRAP, CLASS V | CY | 210.00 |
| 585.3401 | SIMULATED STREAMBED MATERIAL | CY | 35.00 |
| 593.411 | GEOTEXTILE; PERM CONTROL CL.1, NON-WOVEN | SY | 350.00 |
| 602.41190 | CENTRIFUGALLY CAST CONCRETE LINER FOR 90" CMP | LF | 210.00 |
| 603.00215 | 15" R.C. PIPE, 2000D | LF | 32.00 |
| 603.33212 | 12" CORR. POLYETHYLENE END SECTION | EA | 1.00 |
| 603.99012 | 12" TEMPORARY DRAINAGE PIPE | LF | 70.00 |
| 606.012 | W6X9 STEEL POST REPLACEMENTS FOR BEAM GUARDRAIL POSTS | EA | 15.00 |
| 606.0122 | W6X9 STEEL POST ASSEMBLIES FOR BEAM GUARDRAIL POSTS | EA | 15.00 |
| 606.1254 | BEAM GUARDRAIL (TERMINAL UNIT TYPE EAGRT, TL 3) (STEEL POST) | U | 1.00 |
| 606.18001 | 31" W-BEAM GUARDRAIL WITH 8" OFFSET BLOCK (STEEL POST) | LF | 350.00 |
| 606.34202 | SINGLE FACED ASYMMETRICAL TRANSITION RAIL, RIGHT (STEEL POST) | U | 2.00 |
| 606.417 | PORTABLE CONCRETE BARRIER FOR TRAFFIC CONTROL | LF | 400.00 |
| 606.91 | RESETTING OR SETTING GUARDRAIL | LF | 25.00 |

| | | | |
|----------|--|-----|-----------|
| 606.9513 | TEMP. IMPACT ATTENUATION DEVICE (REDIRECTIVE), TEST LEVEL 3 | U | 4.00 |
| 615.034 | RELOCATING TRAFFIC SIGN, TYPE C | U | 1.00 |
| 618.61 | UNIFORMED OFFICERS WITH VEHICLE | \$ | 15,000.00 |
| 618.7 | FLAGGERS | HR | 250.00 |
| 619.1 | MAINTENANCE OF TRAFFIC | U | 1.00 |
| 619.25 | PORTABLE CHANGEABLE MESSAGE SIGN | U | 2.00 |
| 621.2 | RETROREFLECTIVE BEAM GUARDRAIL DELINEATOR | EA | 6.00 |
| 621.31 | SINGLE DELINEATOR WITH POST | EA | 4.00 |
| 621.32 | DOUBLE DELINEATOR WITH POST | EA | 1.00 |
| 622.1 | STEEL WITNESS MARKERS | EA | 2.00 |
| 632.0104 | RETROREFLECTIVE PAINT PAVE. MARKING, 4" LINE | LF | 2,300.00 |
| 643.22 | FERTILIZER FOR REFERTILIZATION | TON | 0.30 |
| 645.3 | EROSION STONE | TON | 350.00 |
| 645.44 | TEMPORARY SLOPE STABILIZATION TYPE D (WILDLIFE FRIENDLY) | SY | 2,450.00 |
| 645.512 | COMPOST SOCK FOR PERIMETER BERM | LF | 1,100.00 |
| 645.52 | RYEGRASS FOR TEMPORARY EROSION CONTROL | LB | 50.00 |
| 645.531 | SILT FENCE | LF | 1,100.00 |
| 645.7 | STORM WATER POLLUTION PREVENTION PLAN | U | 1.00 |
| 645.71 | MONITORING SWPPP AND EROSION AND SEDIMENT CONTROLS | HR | 90.00 |
| 646.4 | TURF ESTABLISHMENT WITH MULCH, TACKIFIERS AND HUMUS | A | 0.60 |
| 670.104 | TEMPORARY PORTABLE LIGHTING | U | 2.00 |
| 692. | MOBILIZATION | U | 1.00 |
| 697.11 | INVASIVE SPECIES CONTROL AND MANAGEMENT PLAN | U | 1.00 |
| 697.31 | PROJECT OPERATIONS PLAN | U | 1.00 |
| 699. | MISCELLANEOUS TEMPORARY EROSION AND SEDIMENT CONTROL | \$ | 25,000.00 |
| 1002.1 | REPAIRS OR REPLACEMENTS AS NEEDED - BRIDGE STRUCTURES | \$ | 6,000.00 |
| 1010.15 | FUEL ADJUSTMENT | \$ | 10,000.00 |

**NEW HAMPSHIRE DEPARTMENT OF EMPLOYMENT SECURITY
EMPLOYMENT OF NEW HIRES**

The following is a list of the local State Employment Security Offices from which the Contractor may secure the unskilled labor for this project:

Department of Employment Security
151 Pleasant Street, PO Box 159
Berlin, NH 03570-2006
Telephone: (603) 752-5500

Department of Employment Security
404 Washington Street, PO Box 180
Claremont, NH 03743-0180
Telephone: (603) 543-3111

Department of Employment Security
10 West Street, PO Box 1140
Concord, NH 03302-1140
Telephone: (603) 228-4100

Department of Employment Security
518 White Mountain Hwy.
Conway, NH 03818-4205
Telephone: (603) 447-5924

Department of Employment Security
109 Key Road
Keene, NH 03431-3926
Telephone: (603) 352-1904

Department of Employment Security
426 Union Avenue, Suite 3
Laconia, NH 03246-2894
Telephone: (603) 524-3960

Department of Employment Security
646 Union Street, Suite 100
Littleton, NH 03561-5314
Telephone: (603) 444-2971

Department of Employment Security
300 Hanover Street
Manchester, NH 03104-4957
Telephone: (603) 627-7841

Department of Employment Security
6 Townsend West
Nashua, NH 03063-1217
Telephone: (603) 882-5177

Department of Employment Security
2000 Lafayette Road
Portsmouth, NH 03801-5605
Telephone: (603) 436-3702

Department of Employment Security
29 South Broadway
Salem, NH 03079-3026
Telephone: (603) 893-9185

Department of Employment Security
6 Marsh Brook Road
Somersworth, NH 03878
Telephone: (603) 742-3600

06/24/08

SSD: 9/11/06, 12/5/90

WAGE RATES
FEDERAL AID PROJECTS

This proposal contains minimum wage determinations as specified by the U.S. Secretary of Labor. Copies of the attached wage determination(s) shall be posted on the bulletin board at the work site and furnished to employees upon request. Furthermore, the wage determination(s) shall be incorporated into all subcontract agreements.

If the Contractor, any subcontractor or lower-tier contractor intend to employ a classification of labor not listed in the attached determination(s), it shall submit a Request for Additional Work Classification(s) to the New Hampshire Department of Transportation, Labor Compliance Office at (603) 271-2467. The Contractor is responsible for ensuring that a Request is submitted for any additional classification of work to be employed by itself, any subcontractor or lower-tier contractor 3-4 weeks before the classification is utilized.

This contract is subject to the Work Hours Act of 1962, P.L. 87-581 and implementing regulations.

General Decision Number: NH170032 01/06/2017 NH32

Superseded General Decision Number: NH20160032

State: New Hampshire

Construction Type: Highway

County: Hillsborough County in New Hampshire.

HIGHWAY CONSTRUCTION PROJECTS (excluding tunnels, building structures in rest area projects & railroad construction; bascule, suspension & spandrel arch bridges designed for commercial navigation, bridges involving marine construction; and other major bridges).

Note: Under Executive Order (EO) 13658, an hourly minimum wage of \$10.20 for calendar year 2017 applies to all contracts subject to the Davis-Bacon Act for which the contract is awarded (and any solicitation was issued) on or after January 1, 2015. If this contract is covered by the EO, the contractor must pay all workers in any classification listed on this wage determination at least \$10.20 per hour (or the applicable wage rate listed on this wage determination, if it is higher) for all hours spent performing on the contract in calendar year 2017. The EO minimum wage rate will be adjusted annually. Additional information on contractor requirements and worker protections under the EO is available at www.dol.gov/whd/govcontracts.

| | |
|---------------------|------------------|
| Modification Number | Publication Date |
| 0 | 01/06/2017 |

* SUNH2011-028 08/15/2011

| | Rates | Fringes |
|--|----------|---------|
| CARPENTER (Excluding Form Work)..... | \$ 24.27 | 1.06 |
| CARPENTER (Form Work Only)..... | \$ 19.93 | 1.06 |
| ELECTRICIAN..... | \$ 23.22 | 2.78 |
| INSTALLER: Guardrail..... | \$ 20.50 | 6.30 |
| IRONWORKER, REINFORCING..... | \$ 20.18 | 0.00 |
| IRONWORKER, STRUCTURAL..... | \$ 34.45 | 17.20 |
| LABORER: Blaster Rock..... | \$ 29.50 | 11.21 |
| LABORER: Common or General..... | \$ 16.99 | 2.60 |
| LABORER: Flagger..... | \$ 11.79 | 1.37 |
| LABORER: Highway/Parking Lot Striping..... | \$ 17.95 | 0.00 |

| | | |
|---|----------|-------|
| LABORER: Landscape..... | \$ 14.40 | 0.00 |
| LABORER: Pipelayer..... | \$ 17.63 | 2.72 |
| OPERATOR: Auger..... | \$ 26.07 | 0.00 |
| OPERATOR: Backhoe..... | \$ 27.05 | 7.95 |
| OPERATOR: Bobcat/Skid Steer/Skid Loader..... | \$ 19.25 | 0.00 |
| OPERATOR: Bucket..... | \$ 25.19 | 0.00 |
| OPERATOR: Bulldozer..... | \$ 25.39 | 5.09 |
| OPERATOR: Crane..... | \$ 23.37 | 2.21 |
| OPERATOR: Drill Rig Caissons.... | \$ 33.46 | 19.78 |
| OPERATOR: Excavator..... | \$ 24.98 | 6.56 |
| OPERATOR: Grader/Blade..... | \$ 25.75 | 6.00 |
| OPERATOR: Loader..... | \$ 25.40 | 7.51 |
| OPERATOR: Mechanic..... | \$ 25.12 | 3.44 |
| OPERATOR: Oiler..... | \$ 29.54 | 16.15 |
| OPERATOR: Paver (Asphalt, Aggregate, and Concrete)..... | \$ 28.88 | 17.05 |
| OPERATOR: Roller..... | \$ 25.23 | 9.69 |
| OPERATOR: Post Driver/Pounder.... | \$ 23.16 | 6.32 |
| TRUCK DRIVER, Includes all axles including Dump Trucks (Excludes Low Bed Trucks)..... | \$ 17.42 | 3.37 |
| TRUCK DRIVER: Low Bed Truck..... | \$ 20.77 | 4.27 |

WELDERS - Receive rate prescribed for craft performing
operation to which welding is incidental.

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Note: Executive Order (EO) 13706, Establishing Paid Sick Leave
for Federal Contractors applies to all contracts subject to the
Davis-Bacon Act for which the contract is awarded (and any
solicitation was issued) on or after January 1, 2017. If this
contract is covered by the EO, the contractor must provide
employees with 1 hour of paid sick leave for every 30 hours
they work, up to 56 hours of paid sick leave each year.
Employees must be permitted to use paid sick leave for their
own illness, injury or other health-related needs, including
preventive care; to assist a family member (or person who is
like family to the employee) who is ill, injured, or has other

health-related needs, including preventive care; or for reasons resulting from, or to assist a family member (or person who is like family to the employee) who is a victim of, domestic violence, sexual assault, or stalking. Additional information on contractor requirements and worker protections under the EO is available at www.dol.gov/whd/govcontracts.

Unlisted classifications needed for work not included within the scope of the classifications listed may be added after award only as provided in the labor standards contract clauses (29CFR 5.5 (a) (1) (ii)).

The body of each wage determination lists the classification and wage rates that have been found to be prevailing for the cited type(s) of construction in the area covered by the wage determination. The classifications are listed in alphabetical order of "identifiers" that indicate whether the particular rate is a union rate (current union negotiated rate for local), a survey rate (weighted average rate) or a union average rate (weighted union average rate).

Union Rate Identifiers

A four letter classification abbreviation identifier enclosed in dotted lines beginning with characters other than "SU" or "UAVG" denotes that the union classification and rate were prevailing for that classification in the survey. Example: PLUM0198-005 07/01/2014. PLUM is an abbreviation identifier of the union which prevailed in the survey for this classification, which in this example would be Plumbers. 0198 indicates the local union number or district council number where applicable, i.e., Plumbers Local 0198. The next number, 005 in the example, is an internal number used in processing the wage determination. 07/01/2014 is the effective date of the most current negotiated rate, which in this example is July 1, 2014.

Union prevailing wage rates are updated to reflect all rate changes in the collective bargaining agreement (CBA) governing this classification and rate.

Survey Rate Identifiers

Classifications listed under the "SU" identifier indicate that no one rate prevailed for this classification in the survey and the published rate is derived by computing a weighted average rate based on all the rates reported in the survey for that classification. As this weighted average rate includes all rates reported in the survey, it may include both union and non-union rates. Example: SULA2012-007 5/13/2014. SU indicates the rates are survey rates based on a weighted average calculation of rates and are not majority rates. LA indicates the State of Louisiana. 2012 is the year of survey on which these classifications and rates are based. The next number, 007 in the example, is an internal number used in producing the wage determination. 5/13/2014 indicates the survey completion

date for the classifications and rates under that identifier.

Survey wage rates are not updated and remain in effect until a new survey is conducted.

Union Average Rate Identifiers

Classification(s) listed under the UAVG identifier indicate that no single majority rate prevailed for those classifications; however, 100% of the data reported for the classifications was union data. EXAMPLE: UAVG-OH-0010 08/29/2014. UAVG indicates that the rate is a weighted union average rate. OH indicates the state. The next number, 0010 in the example, is an internal number used in producing the wage determination. 08/29/2014 indicates the survey completion date for the classifications and rates under that identifier.

A UAVG rate will be updated once a year, usually in January of each year, to reflect a weighted average of the current negotiated/CBA rate of the union locals from which the rate is based.

WAGE DETERMINATION APPEALS PROCESS

1.) Has there been an initial decision in the matter? This can be:

- * an existing published wage determination
- * a survey underlying a wage determination
- * a Wage and Hour Division letter setting forth a position on a wage determination matter
- * a conformance (additional classification and rate) ruling

On survey related matters, initial contact, including requests for summaries of surveys, should be with the Wage and Hour Regional Office for the area in which the survey was conducted because those Regional Offices have responsibility for the Davis-Bacon survey program. If the response from this initial contact is not satisfactory, then the process described in 2.) and 3.) should be followed.

With regard to any other matter not yet ripe for the formal process described here, initial contact should be with the Branch of Construction Wage Determinations. Write to:

Branch of Construction Wage Determinations
Wage and Hour Division
U.S. Department of Labor
200 Constitution Avenue, N.W.
Washington, DC 20210

2.) If the answer to the question in 1.) is yes, then an interested party (those affected by the action) can request review and reconsideration from the Wage and Hour Administrator (See 29 CFR Part 1.8 and 29 CFR Part 7). Write to:

Wage and Hour Administrator
U.S. Department of Labor
200 Constitution Avenue, N.W.
Washington, DC 20210

The request should be accompanied by a full statement of the interested party's position and by any information (wage payment data, project description, area practice material, etc.) that the requestor considers relevant to the issue.

3.) If the decision of the Administrator is not favorable, an interested party may appeal directly to the Administrative Review Board (formerly the Wage Appeals Board). Write to:

Administrative Review Board
U.S. Department of Labor
200 Constitution Avenue, N.W.
Washington, DC 20210

4.) All decisions by the Administrative Review Board are final.

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END OF GENERAL DECISION



August 30, 2017

PROSECUTION OF WORK**DESCRIPTION OF WORK**

This purpose of this project is to rehabilitate the red listed bridge (Br. No. 151/151) carrying NH 114 over Bowman Brook in the Town of Bedford. The project is located approximately 0.5 miles north of NH Rte 101 and is also partially underneath the bridge that carries Old Bedford Road over NH 114. The existing bridge was originally built in 1964 as a 90" diameter by 225 feet long corrugated metal pipe, skewed 45 degrees to the roadway. It has become deformed and deteriorated over the years and presently measures approximately 87"x83". The work limits begin approximately 335 feet south of the bridge and continues approximately 575 feet north along NH Rte 114.

This project consists of removing approximately 15 feet of pipe from each end and constructing new headwalls and scour protection at the inlet and outlet. The remaining pipe will then be rehabilitated by lining it with a centrifugally cast concrete liner.

CONCURRENT WORK

The Department has previously advertised a construction project that will take place in the vicinity and during the life of this contract. The Contractor shall cooperate and coordinate with all other concurrent contracts.

| Project | Anticipated Beginning | Anticipated Completion | Description |
|----------------|------------------------------|-------------------------------|--|
| Bedford 13953 | 4/24/2018 | 10/26/2019 | Widens NH 101 WB to Five Lanes from NH Rte 114 to Wallace Rd |

Refer to 105.07 specifically regarding coordination with other contractors working concurrently. Do not duplicate construction signs. Cover, uncover, or remove permanent signs as necessary (subsidiary to Item 619.1) to provide proper signing through the area.

UTILITIES

The following information is provided as a supplement to and in accordance with 105.06, Cooperation with Utilities. Relocation schedules and time frames are as provided and estimated by the individual utilities.

The overall utility relocation time frame is the cumulative total of the individual utilities and their individual activities, including their advance notification time with some concurrent work as stated hereafter.

There are utility installations in the area belonging to, but not necessarily limited to, the following:

Bedford Public Works Department

Contact: Jeremy Spooner
Title: Environmental Coordinator
Phone: (603) 472-3070
Email: jspooner@bedfordnh.org

Manchester Water Works

Contact: Guy Chabot
Title: Water Distribution Administrator
Phone: (603) 624-6516 x 2801
Email: gchabot@manchesternh.gov

Eversource (Transmission)

Contact: Russell B Maille
Title: Engineering Technician
Phone: (603) 634-2477
Email: Russell.maille@eversource.com

FairPoint Communications

Contact: David Kestner
Title: Network Engineer
Phone: (603) 433-2119
Email: David.Kestner@fairpoint.com

National Grid (Transmission)

Contact: Jonathan Estes
Title: Program Manager
Phone: (781) 907-3303
Email: Jonathan.Estes@NationalGrid.com

Eversource (Distribution)

Contact: Construction Services Support Center
Title: N/A
Phone: 1-800-362-7764
Email: NHNewService@eversource.com

The Contractor is advised to use caution when working near aerial power distribution and transmission wires, as well as underground power distribution and service wires. Contact the appropriate utility for the precautionary measures required.

Note: The Contractor is responsible for all of the notifications noted below unless otherwise specifically stated.

Aerial:

There are no aerial utility relocations anticipated within the project limits.

Underground:

Underground facilities are located within the project area as shown on the plans. The Contractor is advised to use extreme caution while excavating in these areas and to utilize Item 206.19 - Common Structure Excavation Exploratory, as directed, to locate these facilities prior to excavating.

There are no underground utility relocations anticipated within the project limits.

With 1 week advance notice, Bedford Public Works Department will locate and mark out their six (6) inch sewer force main on the west side of NH 114 and will have a Town representative on site during excavation by the State's Contractor in proximity of their sewer main facilities. A minimum of 4 feet of cover shall be maintained unless additional protection is provided.

Permanent Lighting:

No changes to existing lighting within the project are anticipated. The Contractor shall not disturb existing lighting.

Temporary Lighting:

Provide and maintain temporary lighting (670.104) in conjunction with portable concrete barrier as shown on the Traffic Control Plans or as directed. If portable concrete barrier is installed, other than required on the plans, provide temporary lighting as directed (at the Contractor's expense).

EXCAVATING, DREDGING OR FILLING STATE WATERS

The work as indicated qualifies under the US Army Corps of Engineers State Program General Permit (SPGP). The Department has secured the necessary Wetlands Permit approval to accomplish the work and a copy of the approval, including special conditions contained therein, is included elsewhere in the Proposal. The Wetlands Permit will be available at the time of award of Contract. Apply sufficiently in advance for any additional Wetlands Bureau or Corps of Engineers Permits or modifications to the existing Permit(s) necessary due to the Contractor's method of construction or for other work not shown on the plans. Prior to submission to the Wetlands Bureau, have any additional impacts reviewed by the Bureau of Construction and the Bureau of Environment. The Department's Permit is only for the work shown in the Proposal. The SPGP and its general conditions are available online at www.nae.usace.army.mil/Missions/Regulatory/StateGeneralPermits/NewHampshireGeneralPermit.aspx.

To assist the Contractor in preparing a bid, the Wetland Impact and Erosion Control Plans (including the Erosion Control Strategies), are available on-line on the *Invitation to Bid* webpage at nhdot.com in the specific project's Proposal Package.

Contact the Bureau of Environment (Matt Urban, 603-271-3226) for clarification of wetlands limits, if necessary.

EROSION CONTROL AND WATER QUALITY MANAGEMENT

Provide a Storm Water Pollution Prevention Plan (SWPPP) (Item 645.7) and monitoring of the SWPPP (Item 645.71) to assure that any detrimental impacts are minimized to the extent practical and restricted to the construction phase. Take note of the requirements in Section 645 - Erosion Control, particularly 3.1.1 regarding submittals and approvals of the SWPPP prior to specific work. Amend the SWPPP as necessary to provide for continued erosion and sediment control. Appropriate temporary measures shall be implemented as necessary to prevent erosion based upon the Contractor's method of operation and schedule.

Before beginning grubbing operations (or tree clearing if so ordered by the Engineer) or earthwork, install erosion control measures along the toe of slopes in areas adjacent to wetlands or other areas as directed. In addition, provide delineation (i.e. fluorescent painted stakes or fluorescent colored flags, subsidiary to Item 645.531) at the limits of construction adjacent to wetlands or other restricted areas or as directed. Maintain the SWPPP measures throughout construction until the area is stabilized.

This project is subject to Notice of Intent, Notice of Termination and other project records to be completed by the Contractor as required in the Construction General Permit (CGP). NPDES General Guidelines, Notice of Intent and Notice of Termination are available on line in *Doing Business with the DOT* at www.nhdot.com or through the NHDOT Contracts office.

ALTERATION OF TERRAIN/MAXIMUM OPEN AREA

For the construction period from November 30th through May 1st, the area of exposed, unstabilized soil shall be limited to one (1) acre and shall be protected against erosion. The allowable area of exposed soil may be increased if a winter construction plan, developed by a qualified engineer as described in 645.3.2.1, is reviewed and approved by the Department.

ENVIRONMENTAL COMMITMENTS

Refer to the *Summary of Environmental Issues* document found elsewhere in the proposal.

NORTHERN LONG-EARED BAT PROTECTION

The U.S. Fish and Wildlife Service (USFWS) has listed the Northern Long-Eared Bat as threatened under the Endangered Species Act (ESA) to protect the bat and its habitat. In addition, the USFWS has published a Final 4(d) rule, which targets protections to certain sensitive portions of the Northern Long-Eared Bat's lifecycle and allows for specific otherwise legal actions that may result in incidental take of the Northern Long-Eared Bat. This project has been determined to conform to one or more of the permissible actions included in the Final 4(d) rule, based on the project description and location. The Contractor shall comply with the applicable conditions and conservation measures as stated in the *Summary of Environmental Issues* document found elsewhere in the proposal.

If there are any changes to the proposed project activities, alterations of the proposed clearing necessary due to the Contractor's method of construction, or, if additional resources may be impacted by the project, the project may no longer meet the conditions and conservation measures required in the Final 4(d) rule. Contact the Project's Environmental Manager (Matt Urban, 603-271-3226) at the Department's Bureau of Environment for questions about project limits, restrictions, or conservation measures.

LIMITED REUSE SOILS

Limited Reuse Soils (LRS) are comprised of all topsoil adjacent to roadways, on property under the control of NHDOT, that require removal or relocation. In instances where topsoil is not present in the existing right-of-way, LRS may be defined as soil from the top of ground to a depth of six (6) inches. If LRS is disturbed during construction activities, it shall be handled as described in the Soil Management Plan (SMP) included with the Special Attention – Supporting Information for POP Development (SA-POP).

Due to the presence of LRS, the Contractor shall:

- Prepare a Project Operations Plan (POP) (Item 697.31);
- Refer to Special Attention – Supporting Information for POP Development (SA-POP) (See additional information below); and
- Contact the Bureau of Environment (603-271-3226) at least two weeks prior to beginning excavation in these areas.

In addition to topsoil, as discussed above, the definition of LRS includes asphalt pavement that has been ground or pulverized and street wastes.

The Contractor is responsible for managing excavated soils that meet the definition of LRS.

All costs incurred due to excavating, handling, and stockpiling of LRS encountered on the project site will be paid for under Item 203.11. Any necessary replacement material will be paid under Item 203.601 – Embankment-In-Place or as specified on the Plans.

Although not anticipated based on design quantities, off-site transportation and disposal of contaminated soil will be provided by the Department's Environmental Contractor.

Additional Information and Requirements:

The Contractor shall provide the Department with accurate records relative to work associated with LRS issues. Additional discussion is provided in the SMP.

The Department is not responsible for meeting any of the Contractor's Health and Safety obligations.

EXISTING BRIDGE PLANS AND INSPECTION REPORTS

To assist the Contractor in preparing a bid, the existing culvert/bridge plan sheet is available on-line on the *Invitation to Bid* webpage at nhdot.com in the specific project's Proposal Package during the bidding period.

The inspection report and existing culvert/bridge plan sheet for Br. No. 151/151 will be forwarded to the successful bidder upon request.

RIGHT OF WAY AND PROTECTION OF PROPERTY

No right-of-way impacts are anticipated on this project. The Contractor will only be permitted to perform work within the State-owned right-of-way and the existing maintenance easement located on the outlet side of the culvert. The work, as shown on the plans, has been determined to be compatible with this easement.

GEOTECHNICAL INFORMATION

To assist the Contractor in preparing a bid, the GEOTECHNICAL REPORT is available for review during the bidding period. This report is available on-line on the *Invitation to Bid* webpage at nhdot.com in the specific project's Proposal Package.

CONSTRUCTION REQUIREMENTS

General

1. The Contractor is advised that once work has begun on the NH Rte 114 to set up the shoulder closures, it shall proceed expeditiously and continuously for a period not to exceed sixteen weeks.
2. The Contractor shall plan work in Bowman Brook to be performed during the dry time of year, which is assumed to be in the July 5, 2018 through August 31, 2018 time period.

3. Items 500.0201 and 500.0202 – Access for Bridge Construction are provided for access to the inlet and outlet of the culvert. The access ramps shall be located to minimize disturbance of vegetation and in accordance with the environmental requirements. Maintain a minimum of 4 feet of cover over the six (6) inch sewer force main on the west side of NH 114. The Contractor shall not disturb the channel and embankment slopes beyond the limits shown on the plan. Minimize clearing and avoid grubbing where possible. The maximum width for clearing for access ramps shall be 20' wide, unless otherwise necessary. Construct the access ramps within the slope lines shown on the plans. Where existing ground does not provide an adequate surface for access, construct access road with crushed gravel (6" depth, 12' wide). When the Access for Bridge Construction is no longer needed, it shall be removed, and all disturbed areas shall be restored to the conditions equal to or better than existed prior to commencement of the work. Restore and stabilize disturbed areas with humus, seed, fertilizer, mulch and tackifiers, use erosion control blanket where required due to steep slopes or if stabilization occurs after the growing season, all costs for this work shall be included in Items 500.0201 and 500.0202– Access for Bridge Construction. Refer to the Special Provision for Items 500.0201 and 500.0202 for additional information.
4. Access to the site is behind existing guardrail. Remove existing guardrail as shown on the plans, utilizing Item 202.7. See plans for location of portable concrete barrier and impact attenuators to be installed at access points. Any holes left by old guardrail posts shall be filled in, subsidiary to Item 202.7. See plans for details on replacement guardrail, transition rails, and terminal unit. The contractor shall be responsible for disposal of the existing guardrail.
5. Item 503.101 – Water Diversion Structure is included in the contract for the purpose of diverting Bowman Brook and surface water, and for the purpose of dewatering where required. The Contractor shall field review the site to determine the method of diversion and dewatering needed. Submit the water diversion plan for coordination and incorporation on the SWPPP document. This item will be paid only when in complete compliance to the water diversion plans developed by the Contractor. See additional notes on the plans.
6. For Item 602.41190 – Centrifugally Cast Concrete Liner for 90" CMP, the application thickness shall be a minimum of 1-1/2", unless the structural calculations show a need for even greater thickness. See special provisions for detailed requirements.
7. Night work shall be performed without additional compensation for work, materials, personnel, equipment, or procedures required to accomplish the work.
8. The requirement for internal video inspection of pipes specified under Section 603.3.7.1 has been waived this project.

Guardrail/Barrier

1. Grade material and debris under impacted existing guardrail sections over the backslope to improve drainage. This effort shall be subsidiary to the work.

2. Steel guardrail posts and post assemblies (Items 606.012 and 606.0122) are included in the event that the posts of the w-beam guardrail to be reset are unsuitable to be re-used. The Contractor shall take possession of any unsuitable wooden posts and dispose of appropriately.
3. Item 606.417 – Portable Concrete Barrier for Traffic Control shall meet the current NHDOT Standard Plan GR-23 (General Note #1). See also the *Notice to Contractors*, regarding portable concrete barrier located elsewhere in the Contract.
4. The quantity of Item 606.417 – Portable Concrete Barrier for Traffic Control, included in this Contract will be the maximum amount paid for this project. Should a greater quantity be required due to the Contractor's means and methods, the exceeding quantity shall be at the Contractor's expense.
5. The Contractor is advised of the Special Provision provided for Item 606.1254 – Beam Guardrail (Terminal Unit Type EAGRT, TL 3) (Steel Post).

Pavement Marking and Signing

1. Pavement markings shall extend beyond project limits as directed to overlap existing markings disturbed by construction.
2. Document the location of the existing pavement markings as described in 632.3.1.1.2. Provide a copy of this documentation to the Engineer prior to performing any work that may damage any pavement markings. The proposed pavement marking layout shall conform to the current edition of the MUTCD and NHDOT Standard Plans.

EXCAVATIONS

If slopes steeper than 4:1 adjacent to the traveled way or shoulders open to traffic are not protected by existing or new guardrail through non-work hours, protect traffic from these areas using traffic control barrier and temporary lighting if required, as approved by the Engineer at the Contractor's expense.

ELECTRONIC SCHEDULING

The Contractor shall submit an electronic Bar Chart for documentation in accordance with 105.02. Refer to Section 108.03.A - Progress Schedule for detailed information.

WORK HOURS

Do not perform any work involving high noise machinery such as jackhammers or excavating equipment, including starting and warming up the equipment, prior to 7:00 a.m. or after 7:00 p.m., unless otherwise permitted in the contract or approved by the Engineer.

In addition to the Limitation of Operations requirements described in 108.04, unless otherwise approved, do not perform any work during special events scheduled by the town of Bedford. Contact the Bedford Town Manager (Rich Sawyer, 603-472-5242) for the schedule of special events.

INTERMEDIATE COMPLETION DATE

The Intermediate completion date is August 31, 2018 for all work activities associated with working within Bowman Brook, below the water surface.

Complete this work within a Contract Time period (per Section 101.29) defined as a maximum of 42 consecutive working days calculated from the beginning of the shoulder closure installation. Perform this work within the low-flow period of Bowman Brook (assumed to be in the July 5, 2018 through August 31, 2018 time period).

This work includes, but is not limited to, the following:

- a) Construct water diversion and cofferdams
- b) Remove a portion of the existing mitered pipe at the inlet and outlet as shown on the plans
- c) Construct headwalls and wingwalls, and remove cofferdams
- d) Grout voids and repairs to culvert invert
- e) Construct centrifugally cast concrete liner
- f) Construct inlet and outlet riprap and simulated streambed material
- g) Remove water diversion

No additional items are included or payments will be made for work, or for additional personnel, equipment, etc. that may be required to achieve the Intermediate Completion Date.

No allowance will be given for unfavorable weather or ground conditions in accordance with the Special Provision to 108.07 or for delays in materials (see 108.07.B.3). The Special Provision to 108.07 will only apply the Intermediate Completion Date(s).

FINAL COMPLETION DATE

The Final Completion Date is October 26, 2018. The Special Provision to 108.07 will only apply to the Intermediate Completion Date.

August 9, 2017

TRAFFIC CONTROL PLAN

The following are considered to be part of the Traffic Control Plan:

1. Sections 618 and 619 of the Standard Specifications
2. Work Zone Traffic Control Standard Plans*
3. *Manual on Uniform Traffic Control Devices (MUTCD), 2009 Edition*
4. *Flagger and Uniformed Officer Use in Work Zones Policy and Guidelines**

* Available on line under *Doing Business with DOT>Contractors* at www.nhdot.com or through the NHDOT Contracts Office (603-271-3732).

The above referenced specifications, guidelines, and provisions herein provide minimum requirements and/or guidelines; the Contractor may be directed to expand upon the Traffic Control Plan if conditions warrant.

All Uniformed Officers working on any NHDOT funded project, including municipally managed projects, shall have successfully completed a NHDOT approved course on *The Safe and Effective Use of Law Enforcement Personnel in Work Zones*. The officer shall supply proof of successful course completion upon request.

MAINTENANCE OF TRAFFIC

1. Uniformed Officers with Vehicle shall be used to facilitate the installation and removal of the shoulder closures and guardrail work as shown on the plans. Flaggers shall be utilized, as needed, to direct construction equipment entering and leaving the construction access locations.
2. Lane closures are not permitted. Secure approval prior to any implementation of temporary lane shifts. Lane shifts will be limited to night hours (8:00 PM to 5:00 AM), unless otherwise approved. Maintain two-way traffic during day time and non-work hours.
3. Maintain traffic on pavement having a minimum width of 11-foot travel lanes and 2-foot shoulders.
4. Item 619.25 – Portable Changeable Message Signs shall be used for advanced notice of construction activities. *The intent is to reserve the use of these signs for meaningful messages that will help motorists get through the work zone safely and not simply repeat information found on other Construction Signs.*

5. The Contract Administrator may suspend work operations if traffic impacts or delays become excessive.
6. Maintain permanent signing at all times.
7. If operational signs are approved for use in place of permanent construction signs, place the bottom of the signs a minimum 3' above the road grade. To improve operational sign visibility, use the same sign stands for operational signs in multi-lane areas and when signs are placed behind guardrail.

NOTIFICATION REQUIREMENTS FOR CHANGES IN TRAFFIC CONTROL

The TMC shall be notified within 20 minutes of installing the first advanced warning sign for a lane closure or lane blocking event. The TMC shall also be notified within 20 minutes of removal of the last advanced warning sign. The Engineer may approve any refinements to the traffic control plan as appropriate. An additional notification with specific information on the pending change shall be provided to the Engineer at least 48 hours in advance of the proposed traffic control change. This work will be subsidiary to Item 619.1-Maintenance of Traffic. No changes in traffic control will be allowed without completing all advanced notification requirements. If the lane closure does not result in stopped or delayed traffic, then the TMC does not need to be notified. The Contract Administrator or designee will communicate all lane altering events to:

TMC Operations Supervisor
Tel. (603-271-6TMC)

In addition, the Contractor shall notify and provide information regarding traffic control operations to the area emergency services noted below (subsidiary to Item 619.1 – Maintenance of Traffic). Particularly this includes instances such as ramp closures, resetting of granite curb on ramps, and other operations that may block traffic flow temporarily through the work zone:

Emergency Service Contacts:

1. Lt. Jeffrey Ladieu, NH Department of Safety, State Police Headquarters (603-271-3636)
2. Scott Wiggin, Town of Bedford, Fire Chief (603) 472-3219, 792-1370
3. John J. Bryfonski, Town of Bedford, Police Chief 603-472-5113

ADDITIONAL TRAFFIC CONTROL NOTIFICATION

For any traffic control that reduces total contiguous available pavement width to 15' or less, complete and fax a Lane Restriction Form two weeks in advance to the NHDOT Permit Office (603-271-5990). The form may be found elsewhere in the proposal. The Engineer may require the Contractor to sign for alternate routing of wide loads (subsidiary to Item 619.1).

PROHIBITION OF UNNECESSARY TRAFFIC OBSTRUCTION

The clear zone measured from the edge of the traveled way open to traffic shall be as follows:

- 15 feet in areas of posted speed limits 40 mph or less,

Work must be performed in such a way that does not adversely affect traffic from both sides of the roadway at any location at the same time.

VARIATION FROM THE TRAFFIC CONTROL PLAN

If the Contractor feels improvements can be made to the Traffic Control Plan for this project, the Contractor shall submit a written proposal to the Department with any necessary plans for consideration and approval. Additional coordination with the Contract Administrator, the Maintenance District 5 Engineer (Rich Radwanski, 603-666-3336), and the Bureau of Traffic (Julie Mathews, 603-271-2291) may be necessary.

**OVERSIZE/OVERWEIGHT
LANE RESTRICTION FORM**

**SUBMIT TO OVERSIZE/OVERWEIGHT PERMIT OFFICE
EMAIL: OVERHAUL@DOT.NH.GOV
FAX: 603-271-5990**

Date Submitted: _____

Project Name: _____

Town: _____

Roadway: _____
(NB, SB, EB, WB)

Available Travel Width: _____

Date Starting: _____

Date Ending: _____

Duration: _____

One Lane Traffic: ☐ Yes
☐ No

Detour: ☐ Yes ☐ No

Description: _____

NOTES:

1. Maintain adequate width and geometry for loads up to 10 feet 6 inches wide, 13 feet 6 inches height, and 75 feet long or provide adequate detour route.
2. Submit lane restriction form a minimum of 10 working days prior to: 1) start of lane restriction, 2) change of lane restriction conditions, and 3) change of lane restriction ending date.

**BEDFORD
16156**

August 1, 2017

Summary of Environmental Issues

The following is provided to assist in identifying the environmentally sensitive aspects of this project. This notification is neither intended to be all-inclusive nor to replace the need to thoroughly read and abide by all contract documents including but not limited to all applicable state specifications and permits.

Actions To Be Completed Prior to Earth Disturbing Activities (including clearing)

- Environmental documents shall be posted on the project's Bulletin Board. Documents shall include, but are not limited to, signed copies of permits issued by regulatory agencies, NOI tracking numbers, contact information and location of project SWPPP.
- All work shall be located within the existing State right-of-way or easements. Should the Contractor's method of construction necessitate work outside of the right-of-way or easements, work shall not be completed without additional coordination with the Bureau of Environment (Matt Urban, 271-3226).
- Although an Alteration of Terrain (AoT) permit is not needed for this NHDOT project, temporary Best Management Practices (BMPs) and erosion and sedimentation controls shall be utilized to meet the intent and design criteria of the AoT rules.
- This Project is eligible for coverage under the Environmental Protection Agency's (EPA), National Pollutant Discharge Elimination Systems (NPDES) Construction General Permit (CGP). The Contractor shall file a Notice of Intent (NOI) with the EPA prior to the start of work.
- A Storm Water Pollution Prevention Plan (SWPPP) shall be submitted to the Department for approval at least 15 working days prior to the expected start date.
- The Contractor shall abide by all conditions set forth in NHDES Standard Dredge and Fill Permit #2017-01809. Should the Contractor's method of construction require additional disturbance within jurisdictional areas, the Contractor shall secure all additional necessary permits and coordination with the Bureau of Environment prior to the start of work.
- The Department of Transportation shall make a one-time payment in the amount of \$15,927.60 to the DES Aquatic Resource Mitigation (ARM) Fund once the project has been approved by G&C and construction funds are available.
- The Contractor is directed to review and incorporate all applicable provisions outlined by the Department in the Wetland Plans "Erosion Control Strategies and Stabilization Matrix" sheet. This sheet outlines the Department's commitments and strategies to minimize the impacts of construction to the environment. The Erosion Control Strategies and Stabilization Matrix" sheet is available on-line on the Invitation to Bid webpage at nhdot.com in the specific project's Proposal Package.

Actions to be completed during construction

- Hazardous waste remediation sites are located within the project area. While concerns associated with these sites are not anticipated during construction, if any visual or olfactory observations indicate the presence of contamination during excavation, the Bureau of Environment shall be notified immediately and construction shall be discontinued until the situation is assessed.
- The slip lined culvert shall include a roughened bottom.
- If a perched condition on either end of the culvert is identified during construction, it will be corrected to allow for better fish and aquatic organism passage.
- Construction within Bowman Brook shall not take place during September and October to minimize potential impact to wild brook trout and slimy sculpin.



Department of Environmental Services



Robert R. Scott, Commissioner

August 29, 2017

NH DEPT OF TRANSPORTATION
PO BOX 483
CONCORD NH 03302-0483

RE: NH Dept. Of Transportation - File # 2017-01809 – Bedford

Dear Matt Urban:

The New Hampshire Department of Environmental Services (NHDES) Wetlands Bureau has concluded its review of file #2017-01809. NHDES issues this approval notice for the application to: Remove the mitered end sections and rehabilitate a 210 ft. long portion of the 83 in. x 87 in. arch culvert using a centrifugally cast concrete pipe liner, construct headwalls, protect the inlet and outlet and place a 12 in. layer of streambed material impacting 1,300 sq. ft. of riverine and palustrine wetlands. Compensatory mitigation includes a one-time payment of \$15,927.60 to the Aquatic Resource Mitigation Fund. NHDOT project #16156.

The decision to approve this application was based on the following conditions being met:

1. All work shall be in accordance with plans by NHDOT Bureau of Highway Design dated 05/2017 as received by the Department on June 22, 2017.
2. Dredged materials, whether to be stockpiled or disposed of, shall be dewatered in sedimentation basins lined with siltation and erosion controls, and located outside of areas subject to RSA 482-A jurisdiction.
3. Unconfined work within the stream, exclusive of work associated with installation of a cofferdam, shall be done during periods of low flow.
4. Cofferdams shall not be installed during periods of high flow, whether due to seasonal runoff or precipitation. Once a cofferdam is fully effective, confined work can proceed without restriction.
5. Prior to commencing work on a substructure located within surface waters, a cofferdam shall be constructed to isolate the substructure work area from the surface waters.
6. Temporary cofferdams shall be entirely removed immediately following construction.
7. Construction equipment shall not be located within surface waters.
8. Discharge from dewatering of work areas shall be to sediment basins that are: a) located in uplands; b) lined with hay bales or other acceptable sediment trapping liners; c) set back as far as possible from wetlands and surface waters, with a preferred undisturbed vegetated buffer of at least 50 feet and a minimum undisturbed vegetative buffer of 20 feet.
9. Appropriate turbidity controls shall be installed prior to construction, shall be maintained during construction such that no turbidity escapes the immediate dredge area, and shall remain until suspended particles have settled and the water at the work site has returned to normal clarity.
10. Within three days of final grading or temporary suspension of work in an area that is in or adjacent to wetlands or surface waters, all exposed soil areas shall be stabilized by seeding and mulching during the growing season, or if not within the growing season, by mulching with tackifiers on slopes less than 3:1 or netting and pinning on slopes steeper than 3:1.

11. The contractor responsible for completion of the work shall utilize techniques described in the New Hampshire Stormwater Manual, Volume 3, Erosion and Sediment Controls During Construction (December 2008).
12. Extreme precautions shall be taken within riparian areas to prevent unnecessary removal of vegetation during construction. Areas cleared of vegetation must be revegetated with like native species within three days of the completion of the disturbance.
13. There shall be no further alteration to wetlands or surface waters without amendment of this permit.
14. Precautions shall be taken to prevent import or transport of soil or seed stock containing nuisance or invasive species such as Purple Loosestrife, Knotweed, or Phragmites. The contractor responsible for work shall appropriately address invasive species in accordance with the NHDOT Best Management Practices for Roadside Invasive Plants (2008).
15. The impacts associated with the temporary work shall be restored immediately following construction.
16. No work in jurisdiction shall occur during September through October.
17. The permittee shall comply with the requirements for stream enhancement relative to Mitigation Project Monitoring in accordance with Env-Wt 803.04(a) and shall monitor for no fewer than 5 growing seasons per Env-Wt 803.04 (b).
18. This approval is not valid until DES receives a one-time payment of \$15,927.60 to the DES Aquatic Resource Mitigation (ARM) Fund. The applicant shall remit payment to DES. If DES does not receive payment within 120 days of the date of this approval letter, DES will deny the application.

The decision to approve this application was based on the following findings:

1. This is a major impact project per Administrative Rule Env-Wt 303.02(p), a replacement of a stream crossing structure in a tier 3 stream.
2. The need for the proposed impacts has been demonstrated by the applicant per Env-Wt 302.01.
3. The applicant has provided evidence which demonstrates that this proposal is the alternative with the least adverse impact to areas and environments under the department's jurisdiction per Env-Wt 302.03.
4. The applicant has demonstrated by plan and example that each factor listed in Env-Wt 302.04(a) Requirements for Application Evaluation, has been considered in the design of the project.
5. The project was coordinated through the Natural Resource Agency monthly meetings and discussed on July 16, 2014, Dec. 16, 2015 and April 19, 2017.
6. In accordance with RSA 482-A:8, DES finds that the requirements for a public hearing do not apply as the permitted project is not of substantial public interest, and will not have a significant impact on or adversely affect the values of the riverine resource, as identified under RSA 482-A:1.
7. The DES has determined the applicant has met the purpose of the current stream rules relative to not causing damage upstream or downstream and not impeding aquatic organisms.

Mitigation Findings:

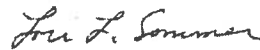
8. The applicant has reviewed on-site options for mitigation and the department has determined that this project is acceptable for payment to the Aquatic Resource Mitigation (ARM) Fund.
9. Mitigation compensation is for 65 linear feet channel impacts as discussed on April 19, 2017 at the Natural Resource Agency coordination meeting.
10. The payment calculated for the proposed wetland loss equals \$15,927.60.
11. The Department decision is issued in letter form and upon receipt of the ARM fund payment, the Department shall issue a posting permit in accordance with Env-Wt 803.08(f).

Any person aggrieved by this decision may appeal to the New Hampshire Wetlands Council (the Council) by filing an appeal that meets the requirements specified in RSA 482-A:10, RSA 21-O:14, and the rules adopted by the Council, Env-WtC 100-200. The appeal must be filed directly with the Council within 30 days of the date of this decision and must set forth fully every ground upon which it is claimed that the decision complained of is unlawful or

unreasonable. Only those grounds set forth in the notice of appeal can be considered by the Council. Information about the Council, including a link to the Council's rules, is available at <http://nhec.nh.gov/> (or more directly at <http://nhec.nh.gov/wetlands/index.htm>) Copies of the rules also are available from the NHDES Public Information Center at (603) 271-2975.

This permit is contingent on receipt of a one-time payment of \$15,927.60 dollars to the NHDES Aquatic Resource Mitigation (ARM) Fund. The payment should be received after the 30-day reconsideration period or after September 28, 2017. If the payment is not received by NHDES by December 27, 2017 or 120 days from the approval decision, NHDES will deny the application. Please include a copy of this letter with the payment. If you have any questions please contact me at (603) 271-4059 or via e-mail, lori.sommer@des.nh.gov.

Sincerely,



Lori Sommer
Wetland Mitigation Coordinator
NHDES Wetlands Bureau

cc: Bedford Conservation Commission
Bedford Board of Selectmen
Bedford Municipal Clerk
Normandeau Associates Inc.

2/16/2017

SPECIAL ATTENTION**NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM (NPDES) STORM WATER CONSTRUCTION GENERAL PERMIT REQUIREMENTS**

Contractors are advised that 40 CFR Part 122 applies to this project. This provision prohibits point source discharges of storm water associated with construction activity to water bodies of the United States without a National Pollutant Discharge Elimination System (NPDES) storm water construction general permit.

This project is eligible for coverage under the reissued NPDES Storm Water Construction General Permit for Storm Water Discharge from construction sites, which was published on January 11, 2017. Contractors apply for coverage under this permit through the Environmental Protection Agency (EPA), Notice of Intent (NOI) website (http://cdx.epa.gov/epa_home.asp) at least 14 days prior to commencement of construction on any site which will result in the disturbance of the land and after your Storm Water Pollution Prevention Plan has been prepared.

Other provisions of the General Permit requires a Storm Water Pollution Prevention Plan to be prepared, implemented, kept current, and maintained on the project site along with inspection reports; and when the project site has been finally stabilized and storm water discharges from construction activities have been eliminated, a Notice of Termination (NOT) must be submitted.

NPDES General Guidelines, including an outline for Construction (Storm Water) Pollution Prevention Plan, Notice of Intent and Notice of Termination are available on the internet at EPA's Stormwater site (www.epa.gov/npdes/stormwater-discharges-construction-activities#ereporting).

An "active status" of the all submitted NOI's is required prior to commencing any work on the project.

On both the Notice of Intent (NOI) and the Notice of Termination (NOT) forms the information relative to the Facility Operator Information shall be that of the prime Contractor.

See the attached information for required information for filing for coverage under this permit.

PROJECT: Bedford
STATE NO.: 16156

The following statements have been provided for the Contractor, and the consultant service group they choose, to assist in preparation of the Stormwater Pollution Prevention Plan (SWPPP). These statements provided are intended to meet the requirements of the designated sections outlined below for the Construction General Permit (CGP).

Section 9.1.2.1.

This project may qualify for coverage under the Alteration of Terrain (AoT) Permit issued by Department of Environmental Services (DES) pursuant to RSA 485-A: 17 and Env-Ws 1500. If so, this requirement is satisfied through a Memorandum of Agreement (MOA) between the NH Department of Transportation and the Department of Environmental Services. All requirements of Env-Ws 1500 are in force even though no permit was issued.

Section 9.1.2.2.

The Department of Transportation has reviewed the project area to determine if there are known contaminants that could be discharged to surface waters. The determination was made either by a review of the NHDES OneStop Geographic Information System, or through investigation and consultation with the NHDES Waste Division. If there are, contaminants present on the site, other waste disposal dewatering options have been arranged and are included in the proposal. Necessary permits to discharge to surface waters have been obtained.

Section 9.1.2.4.

Opportunities to include Post-Construction groundwater recharge using infiltration best management practices (BMPs) were evaluated in accordance the Memorandum of Agreement (MOA) between the NH Department of Transportation and the Department of Environmental Services regarding compliance with Env-Wq 1500 Alteration of Terrain. The Department of Transportation has obtained coverage under its own NPDES General Permit for discharges from its Municipal Separate Storm Sewer System and therefore not subject to others. If feasible as described in our MOA and NPDES permit, appropriate on-site Infiltration BMPs were included in the design of the project.

The following information is provided to help in the Contractor's preparation of the Environmental Protection Agency NPDES Permit NOI Form for the Construction General Permit (CGP). It is expressly understood and agreed that the information has been obtained with reasonable care and recorded in good faith, but the Department assumes no responsibility whatsoever with respect to the sufficiency or accuracy of the information.

I. Approval to Use Paper NOI Form

It is the contractor's responsibility to follow the rules and regulations under the current CGP regarding methods for filing their NOI. The filing method chosen is solely the responsibility of the contractor.

II. Permit Number

The permit coverage for stormwater discharges from construction activities with ground disturbance over one (1) acre occurring in the State of New Hampshire is the Construction General Permit (CGP). The state specific CGP permit number is provided; the EPA is the permitting authority in NH: **NHR100000**

III. Operator Information

The contractor awarded the contract shall fill out all operator information in this section for their eNOI using their company's information and IRS Employer Identification Number (EIN).

The point of contact listed in this section should be the named responsible party within the construction company for this project.

IV. Project/Site Information

Project Site Name: Bedford 16156
Site Address/Location: NH Route 114 over Bowman Brook
Town: Bedford
Zip Code: 03110
County: Hillsborough

Lat/Long: -71.506 42.966

From ☐ USGS Topo (Scale _____); ☐ GPS or ☒ Other _____
Reference Datum ☐ NAD 27, ☒ NAD 83 or WGS 84, ☐ Unknown

Estimated Project Start Date: Spring 2018

Estimated Project End Date: 10/26/2018

Estimated Area to be disturbed: >1acre

8/22/2017

Is this project an emergency¹ related project? ☐ YES ☒ NO

Type of Construction Site (check all that apply): ☐ Single-Family Residential ☐ Multi-Family Residential ☐ Commercial ☐ Industrial ☐ Institutional ☒ Highway or Road ☐ Utility ☐ Other _____

Will there be demolition of any structure built or renovated before January 1, 1980?
☐ YES NO; If yes, do any of the structures being demolished have at least 10,000 square feet of floor space? ☐ YES ☐ NO

Was the pre-development land use used for agriculture (see Appendix A for definition of “agricultural land”)? ☐ YES ☐ NO

V. Discharge Information

Does your project/site discharge stormwater into a Municipal Separate Storm Sewer System (MS4)? ☒ YES ☐ NO

Are there any *surface waters*² within 50-Feet of earth disturbance on this project?
☒ YES ☐ NO

Name(s) of the first surface water that received stormwater directly from the project site:

Wetlands
NHRIV700060803-03, BOWMAN BROOK

Name(s) of any impaired waters to which you discharge and the pollutant(s) for which they are impaired:

None

Name(s) of any waters to which you discharge for which there is an EPA approved or established TMDL, the name of the TDML and the pollutant(s) for which there is a TMDL:

All, Northeast Regional Mercury TMDL 33883

Name(s) of surface waters to which this project discharges designated by the state under its anti-degradation policy as Tier 2 (or Tier 2.5) water³ or as a Tier 3⁴ water:

¹ Emergency related project is defined as a project initiated in response to a public emergency (e.g. natural disaster, disruption in essential public services), for which the related work requires immediate authorization to avoid imminent endangerment to human health or the environment, or to reestablish essential public services.

² Surface waters are defined as a “water of the United States” as defined in 40 CFR 122.2. Wetlands are also defined here.

³ Tier 2 (or Tier 2.5) waters are waters where quality exceeds levels necessary to support propagation of fish, shellfish, and wildlife and recreation in and on the water as defined by EPA, NH DES also must define

8/22/2017

None

Describe the methods you used to complete the above tables: NHDES Data

VI. Chemical Treatment Information

The contractor shall provide any necessary chemical Treatment Information⁵ to the NH DOT through the Stormwater Pollution Prevention Plan (SWPPP) prior to the Department filing their eNOI.

VII. Stormwater Pollution Prevention Plan (SWPPP) Information

All sites eligible for coverage under this permit are required to prepare a SWPPP in advance of filing the NOI in accordance with Part 7 of the CGP.

The contractor shall provide the name and contact information for the person who developed the SWPPP on the contractor's behalf for this project. The contractor shall provide this information to the NH DOT through the Stormwater Pollution Prevention Plan (SWPPP) prior to the Department filing their eNOI.

VIII. Endangered Species Protection

Federally Endangered/Threatened Species located within the project area:
Northern Long Eared Bat

The contractor is eligible to file for coverage under **criteria B** using the Tracking number provided below by NH DOT

*NOI Tracking Number: To be supplied by the Department once the NOI has been certified.

The preparer shall include the attached Natural Heritage Bureau and/or US Fish and Wildlife correspondence in the SWPPP

IX. Historic Preservation

Is the Department requiring, or is the Contractor installing per their SWPPP, any stormwater controls that require subsurface earth disturbance? ☒ **YES** ☐ **NO**

IF YES... Continue on to the next question.

these for us. As of May 1, 2012 DES issued a clarification document indicating that there are currently no Tier 2 (or 2.5) waters in NH.

⁴ Tier 3 waters are outstanding natural resource waters.

⁵ Chemical names and information required by the CGP for polymers, flocculants, or other treatment chemicals, including cationic treatment chemicals if applicable. NH DES and the regional EPA office must approve use of such chemicals.

8/22/2017

IF NO... All subsequent boxes in this section should be skipped

Have prior surveys or evaluations conducted on the site determined whether historic properties do not exist, or that prior disturbance has precluded the existence of historic properties? ☐ YES ☒ NO

IF YES... All subsequent boxes in this section should be skipped and **the SWPPP preparer shall include the attached Memo in the SWPPP.**

IF NO... Continue on to the next question.

Did State Historic Preservation Office (SHPO) respond to you within the 15 calendar days to indicate whether the subsurface earth disturbances caused by the installation of stormwater controls affect historic properties? ☒ YES ☐ NO

Have you determined that your installation of subsurface earth-disturbing stormwater controls will have no effect on historic properties? ☒ YES ☐ NO

IF YES... ☒ SHPO provided written indication that no historic properties will be affected by the installation of stormwater controls on site. **The SWPPP preparer shall include the attached Cultural Resources No Historic Properties Affected Memo in the SWPPP.**

IF NO... ☐ SHPO provided written indication that adverse effects to historic properties from the installation of stormwater controls can be mitigated by the agreed upon actions. **The SWPPP preparer shall include the attached Cultural Resources No Adverse Effect Memo or the Adverse Effect Memo and Memorandum of Agreement (MOA) between the Department and SHPO in the SWPPP.**

-OR-

IF NO & INVESTIGATIONS ARE PENDING OR ARE INCLUDED AS PART OF THE CONTRACT...

☐ Other: _____

X. Certification

A responsible corporate officer should certify this NOI. For more information on the purpose and definition of this responsible party, please see Appendix I (I.11 Signatory Requirements) in the CGP.



To: Vicki Chase
25 Nashua Road
Bedford, NH 03301-5022

Date: 3/8/2017

From: NH Natural Heritage Bureau

Re: Review by NH Natural Heritage Bureau of request dated 3/8/2017
NHB File ID: NHB17-0702

Applicant: Joe Adams

Location: Tax Map(s)/Lot(s): NA
Bedford

Project Description: The project proposes to rehabilitate the existing Bowman Brook culvert which crosses under NH Route 114 and Old Bedford Rd in Bedford. The existing culvert is a 90-inch, 210-lf, corrugated metal pipe and is on the NHDOT's red list. The culvert will be shortened by approximately 40 feet on either end and then sliplined. Grading and retaining walls on both ends will be necessary and the culvert length will be reduced to approximately 130 feet in length.

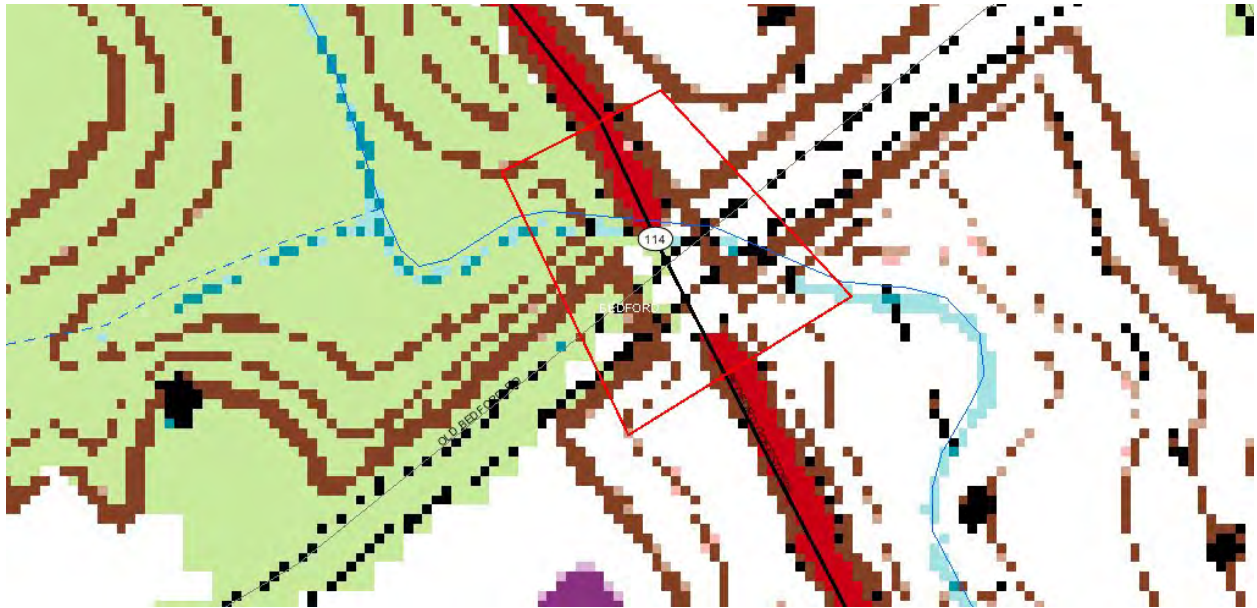
The NH Natural Heritage database has been checked for records of rare species and exemplary natural communities near the area mapped below. The species considered include those listed as Threatened or Endangered by either the state of New Hampshire or the federal government. We currently have no recorded occurrences for sensitive species near this project area.

A negative result (no record in our database) does not mean that a sensitive species is not present. Our data can only tell you of known occurrences, based on information gathered by qualified biologists and reported to our office. However, many areas have never been surveyed, or have only been surveyed for certain species. An on-site survey would provide better information on what species and communities are indeed present.

This report is valid through 3/7/2018.



MAP OF PROJECT BOUNDARIES FOR NHB FILE ID: NHB17-0702



Vicki Chase

From: Magee, John <john.magee@wildlife.nh.gov>
Sent: Tuesday, April 18, 2017 2:39 PM
To: Vicki Chase
Cc: McNamara, David; Carpenter, Matthew; Nugent, Benjamin
Subject: RE: Bowman Brook, Bedford

Backwatered means that the water backs up into it, such that there is essentially a long pool throughout the pipe. A backwatered condition, assuming at least 3+ inches of water depth in the pipe, is passable by all the fish species in this stream. The photos seem to show that it probably is currently backwatered almost the entire length of the pipe (good for fish passage), but if the invert is lined with concrete, it may no longer be backwatered. If you have survey data, you may be able to determine if the proposed condition would be backwatered by looking at the elevations of the grade control downstream of the pipe and the elevations of the pipe outlet and inlet inverts (DOT has done this at many crossings that were proposed to get concrete inverts). Because these populations of wild brook trout and slimy sculpin are relatively rare this far south in the Merrimack River watershed, my recommendation is to not impede fish passage at this site.

Time of year that would be bad for brook trout is Sept-October.

John

John Magee
 M.S., Certified Fisheries Professional
 Fish Habitat Biologist
 New Hampshire Fish and Game Department
 11 Hazen Drive
 Concord, NH 03301
 P 603-271-2744
 F 603-271-5829

From: Vicki Chase [mailto:VChase@normandeau.com]
Sent: Monday, April 17, 2017 5:49 PM
To: Magee, John
Cc: McNamara, David; Carpenter, Matthew; Nugent, Benjamin
Subject: RE: Bowman Brook, Bedford

Thanks for getting back to me so quickly. I'm not sure what you mean by backwatered but I have not observed it "perched"; it is possible that under very low flow conditions it might be. It is a DOT project, originally they had hoped to shorten the culvert but because of the Old Bedford Road overpass and steep embankments that plan would have required very high retaining walls and DOT's geotechnical staff determined it wasn't feasible.

There is a scour pool at the outlet – I know for other culverts you have told me that scour pools provide space for trout to get up speed to jump up into culverts (do I have that right?). The pipe will be shortened slightly under the current plan – it is currently cut at an angle on the end, and there will be headwalls constructed with a flat face. So, there will be scour stone placed at the new shortened outlet.

Do you have particular recommendations for slimy sculpin and wild brook trout? (TOY restrictions or other recommendations).

VICKI CHASE
NORMANDEAU ASSOCIATES, INC.
603-637-1111 (direct) | 603-731-7653 (cell)

From: Magee, John [<mailto:john.magee@wildlife.nh.gov>]
Sent: Monday, April 17, 2017 5:19 PM
To: Vicki Chase <VChase@normandeau.com>
Cc: McNamara, David <David.McNamara@stantec.com>; Carpenter, Matthew <Matthew.Carpenter@wildlife.nh.gov>; Nugent, Benjamin <Benjamin.Nugent@wildlife.nh.gov>
Subject: RE: Bowman Brook, Bedford

Hi Vicki. Will the culvert be backwatered for its entire length? Is this a DOT project?

I have attached a simple map that shows the location of our fish survey of Bowman Brook, which was done in August 2009. Interestingly, we caught one wild brook trout and a few slimy sculpin. This is very far south in the Merrimack River watershed for both species (I think slimy sculpin are not found farther south in the Merrimack watershed). Notably, the site was considerably far downstream from the culvert in question, and therefore I suspect the wild brook trout would comprise a greater relative abundance near the culvert than at our fish survey site (generally the water is cooler farther upstream, and brook trout need cool water).

The fishery concern we have is for the slimy sculpin and the wild brook trout.

John

John Magee
M.S., Certified Fisheries Professional
Fish Habitat Biologist
New Hampshire Fish and Game Department
11 Hazen Drive
Concord, NH 03301
P 603-271-2744
F 603-271-5829

From: Vicki Chase [<mailto:VChase@normandeau.com>]
Sent: Monday, April 17, 2017 2:48 PM
To: Magee, John
Cc: McNamara, David
Subject: Bowman Brook, Bedford

Hi John,

I am assisting Stantec with a rehabilitation of a culvert that carries Bowman Brook (perennial stream with a 3.67 s. mile watershed) under Old Bedford Road and Route 114 in Bedford. The proposed rehabilitation is for a concrete lining, because physical constraints make replacement options impracticable. NHHB did not have records of any occurrences of rare species.

The culvert is 130' long, is not perched but there is a scour hole at the outlet.

Are there any fisheries concerns we should be aware of for this project?

Attached are a locus map, watershed map, and general plan for the proposed rehabilitation.

Thanks for your help and let me know if you need any other information.

VICKI CHASE, CWS
Principal Regulatory Specialist
NORMANDEAU ASSOCIATES, INC.
25 Nashua Road, Bedford, NH 03110
603-637-1111(direct) | 603-731-7653 (cell)
vchase@normandeau.com www.normandeau.com

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United States Department of the Interior

FISH AND WILDLIFE SERVICE
New England Ecological Services Field Office
70 COMMERCIAL STREET, SUITE 300
CONCORD, NH 03301
PHONE: (603)223-2541 FAX: (603)223-0104
URL: www.fws.gov/newengland



Consultation Code: 05E1NE00-2016-SLI-1024

March 02, 2016

Event Code: 05E1NE00-2016-E-01423

Project Name: Bowman Brook Culvert

Subject: List of threatened and endangered species that may occur in your proposed project location, and/or may be affected by your proposed project

To Whom It May Concern:

The enclosed species list identifies threatened, endangered, proposed and candidate species, as well as proposed and final designated critical habitat, that may occur within the boundary of your proposed project and/or may be affected by your proposed project. The species list fulfills the requirements of the U.S. Fish and Wildlife Service (Service) under section 7(c) of the Endangered Species Act (Act) of 1973, as amended (16 U.S.C. 1531 *et seq.*).

New information based on updated surveys, changes in the abundance and distribution of species, changed habitat conditions, or other factors could change this list. Please feel free to contact us if you need more current information or assistance regarding the potential impacts to federally proposed, listed, and candidate species and federally designated and proposed critical habitat. Please note that under 50 CFR 402.12(e) of the regulations implementing section 7 of the Act, the accuracy of this species list should be verified after 90 days. This verification can be completed formally or informally as desired. The Service recommends that verification be completed by visiting the ECOS-IPaC website at regular intervals during project planning and implementation for updates to species lists and information. An updated list may be requested through the ECOS-IPaC system by completing the same process used to receive the enclosed list.

The purpose of the Act is to provide a means whereby threatened and endangered species and the ecosystems upon which they depend may be conserved. Under sections 7(a)(1) and 7(a)(2) of the Act and its implementing regulations (50 CFR 402 *et seq.*), Federal agencies are required to utilize their authorities to carry out programs for the conservation of threatened and endangered species and to determine whether projects may affect threatened and endangered species and/or designated critical habitat.

A Biological Assessment is required for construction projects (or other undertakings having similar physical impacts) that are major Federal actions significantly affecting the quality of the human environment as defined in the National Environmental Policy Act (42 U.S.C. 4332(2)(c)). For projects other than major construction activities, the Service suggests that a biological evaluation similar to a Biological Assessment be prepared to determine whether the project may affect listed or proposed species and/or designated or proposed critical habitat. Recommended contents of a Biological Assessment are described at 50 CFR 402.12.

If a Federal agency determines, based on the Biological Assessment or biological evaluation, that listed species and/or designated critical habitat may be affected by the proposed project, the agency is required to consult with the Service pursuant to 50 CFR 402. In addition, the Service recommends that candidate species, proposed species and proposed critical habitat be addressed within the consultation. More information on the regulations and procedures for section 7 consultation, including the role of permit or license applicants, can be found in the "Endangered Species Consultation Handbook" at:

<http://www.fws.gov/endangered/esa-library/pdf/TOC-GLOS.PDF>

Please be aware that bald and golden eagles are protected under the Bald and Golden Eagle Protection Act (16 U.S.C. 668 *et seq.*), and projects affecting these species may require development of an eagle conservation plan (http://www.fws.gov/windenergy/eagle_guidance.html). Additionally, wind energy projects should follow the wind energy guidelines (<http://www.fws.gov/windenergy/>) for minimizing impacts to migratory birds and bats.

Guidance for minimizing impacts to migratory birds for projects including communications towers (e.g., cellular, digital television, radio, and emergency broadcast) can be found at: <http://www.fws.gov/migratorybirds/CurrentBirdIssues/Hazards/towers/towers.htm>; <http://www.towerkill.com>; and <http://www.fws.gov/migratorybirds/CurrentBirdIssues/Hazards/towers/comtow.html>.

We appreciate your concern for threatened and endangered species. The Service encourages Federal agencies to include conservation of threatened and endangered species into their project planning to further the purposes of the Act. Please include the Consultation Tracking Number in the header of this letter with any request for consultation or correspondence about your project that you submit to our office.

Attachment



United States Department of Interior
Fish and Wildlife Service

Project name: Bowman Brook Culvert

Official Species List

Provided by:

New England Ecological Services Field Office

70 COMMERCIAL STREET, SUITE 300

CONCORD, NH 03301

(603) 223-2541

<http://www.fws.gov/newengland>

Consultation Code: 05E1NE00-2016-SLI-1024

Event Code: 05E1NE00-2016-E-01423

Project Type: BRIDGE CONSTRUCTION / MAINTENANCE

Project Name: Bowman Brook Culvert

Project Description: The project proposes to rehabilitate the structurally deficient existing Bowman Brook culvert, which carries Bowman Brook under NH Route 114 at the Old Bedford Road bridge crossing in Bedford, NH. Improvements include slip lining a 130-ft section of the existing culvert, constructing retaining walls on both sides of the slip lined section, and regrading in the vicinity of the culvert inlet and outlet. An overflow pipe is also proposed to alleviate any rise in upstream floodway elevations.

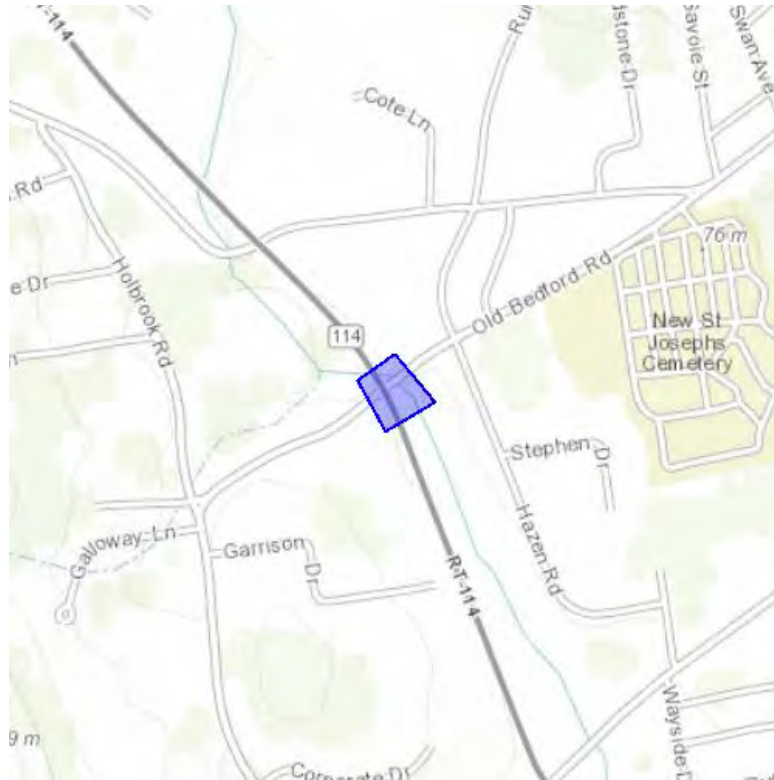
Please Note: The FWS office may have modified the Project Name and/or Project Description, so it may be different from what was submitted in your previous request. If the Consultation Code matches, the FWS considers this to be the same project. Contact the office in the 'Provided by' section of your previous Official Species list if you have any questions or concerns.



United States Department of Interior
Fish and Wildlife Service

Project name: Bowman Brook Culvert

Project Location Map:



Project Coordinates: MULTIPOLYGON (((-71.50629758834839 42.966503828817835, -71.50542855262756 42.96694347486391, -71.5045166015625 42.96611913594993, -71.50565385818481 42.9656402292221, -71.50629758834839 42.966503828817835)))

Project Counties: Hillsborough, NH



United States Department of Interior
Fish and Wildlife Service

Project name: Bowman Brook Culvert

Endangered Species Act Species List

There are a total of 1 threatened or endangered species on your species list. Species on this list should be considered in an effects analysis for your project and could include species that exist in another geographic area. For example, certain fish may appear on the species list because a project could affect downstream species. Critical habitats listed under the **Has Critical Habitat** column may or may not lie within your project area. See the **Critical habitats within your project area** section further below for critical habitat that lies within your project. Please contact the designated FWS office if you have questions.

| Mammals | Status | Has Critical Habitat | Condition(s) |
|---|------------|----------------------|--------------|
| Northern long-eared Bat (<i>Myotis septentrionalis</i>) | Threatened | | |



United States Department of Interior
Fish and Wildlife Service

Project name: Bowman Brook Culvert

Critical habitats that lie within your project area

There are no critical habitats within your project area.



THE STATE OF NEW HAMPSHIRE
DEPARTMENT OF TRANSPORTATION



CHRISTOPHER D. CLEMENT, SR.
COMMISSIONER

JEFF BRILLHART, P.E.
ASSISTANT COMMISSIONER

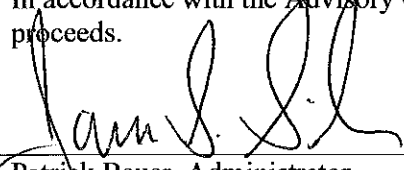
BEDFORD
X-A001(160)
16156
RPR 6412

No Historic Properties Affected Memo

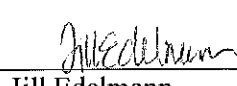
Pursuant to a Request for Project Review submitted in January 2015, and for the purpose of compliance with regulations of the National Historic Preservation Act and the Advisory Council on Historic Preservation's *Procedures for the Protection of Historic Properties* (36 CFR 800), the NH Division of Historical Resources (NHDHR) and the NH Division of the Federal Highway Administration (FHWA) have coordinated the identification and evaluation of historical and archaeological resources with plans to rehabilitate the existing 210 lf, 8-ft X 7-ft corrugated arch Bowman Brook culvert (151/151) which carries Bowman Brook under NH 114 at the Old Bedford Road bridge crossing in Bedford, NH. Improvements include rehabilitation of a 100-ft section of the existing culvert by inserting a rigid-wall or flexible liner pipe, constructing retaining walls on either side of the rehabilitated pipe, and re-grading in the vicinity of the culvert inlet and outlet. Impacts will take place within previously disturbed areas of the existing culvert.

Based on a review pursuant to 36 CFR 800.4, we agree that no historic or archaeological resources are affected in the project area and that no further survey work is needed. The culvert was constructed in 1964 and is included in the Program Comment for Post-1945 common concrete and steel bridges.

In accordance with the Advisory Council's regulations, we will continue to consult, as appropriate, as this project proceeds.

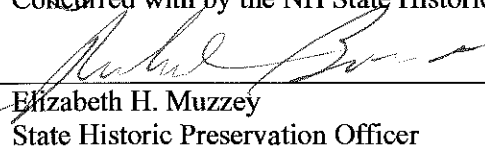

 Patrick Bauer, Administrator
 Federal Highway Administration

2/5/15
 Date


 Jill Edelmann
 Cultural Resources Program Manager

1/30/2015
 Date

Concurred with by the NH State Historic Preservation Officer:


 Elizabeth H. Muzzey
 State Historic Preservation Officer
 NH Division of Historical Resources

2-11-15
 Date

c.c. Chris St. Louis, NHDHR Christine Perron, DOT
 Jamie Sikora, FHWA Victoria Chase, DOT

S:\Environment\PROJECTS\DESIGN\16156\Cultural\Bedford 16156 NoHistoricPropAffectedFHWA 2015.docx

Northern Long-Eared Bat 4(d) Rule Streamlined Consultation Form

Federal agencies should use this form for the optional streamlined consultation framework for the northern long-eared bat (NLEB). This framework allows federal agencies to rely upon the U.S. Fish and Wildlife Service's (USFWS) January 5, 2016, intra-Service Programmatic Biological Opinion (BO) on the final 4(d) rule for the NLEB for section 7(a)(2) compliance by: (1) notifying the USFWS that an action agency will use the streamlined framework; (2) describing the project with sufficient detail to support the required determination; and (3) enabling the USFWS to track effects and determine if reinitiation of consultation is required per 50 CFR 402.16.

This form is not necessary if an agency determines that a proposed action will have no effect to the NLEB or if the USFWS has concurred in writing with an agency's determination that a proposed action may affect, but is not likely to adversely affect the NLEB (i.e., the standard informal consultation process). Actions that may cause prohibited incidental take require separate formal consultation. Providing this information does not address section 7(a)(2) compliance for any other listed species.

IPaC Official Species List Consultation Code: 05E1NE00-2016-SLI-1024

Information to Determine 4(d) Rule Compliance:

YES NO

| | | |
|--|-------------------------------------|-------------------------------------|
| 1. Does the project occur wholly outside of the WNS Zone ¹ ? | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| 2. Have you contacted the appropriate agency ² to determine if your project is near known hibernacula or maternity roost trees? | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| 3. Could the project disturb hibernating NLEBs in a known hibernaculum? | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| 4. Could the project alter the entrance or interior environment of a known hibernaculum? | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| 5. Does the project remove any trees within 0.25 miles of a known hibernaculum at any time of year? | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| 6. Would the project cut or destroy known occupied maternity roost trees, or any other trees within a 150-foot radius from the maternity roost tree from June 1 through July 31. | <input type="checkbox"/> | <input checked="" type="checkbox"/> |

You are eligible to use this form if you have answered yes to question #1 **or** yes to question #2 **and** no to questions 3, 4, 5 and 6. The remainder of the form will be used by the USFWS to track our assumptions in the BO.

Agency and Applicant³ (Name, Email, Phone No.): NHDOT

L. Robert Landry, Jr., NHDOT Bridge Design RLandry@dot.state.nh.us 603-271-3921

Project Name: Bowman Brook Culvert Rehabilitation

Project Location (include coordinates if known): X: 1027331.74 Y: 169991.92

Basic Project Description (provide narrative below or attach additional information):

The project proposes to rehabilitate the structurally deficient existing Bowman Brook culvert, which carries Bowman Brook under NH Route 114 at the Old Bedford Road bridge crossing in Bedford, NH. Improvements involve slip lining a 130-ft section of the existing culvert by inserting either a rigid-wall or flexible liner pipe, constructing retaining walls on both sides of the slip lined section, and re-grading in the vicinity of the culvert inlet and outlet. An overflow pipe is also proposed to alleviate any

¹ <http://www.fws.gov/midwest/endangered/mammals/nleb/pdf/WNSZone.pdf>

² See <http://www.fws.gov/midwest/endangered/mammals/nleb/nhisites.html>

³ If applicable - only needed for federal actions with applicants (e.g., for a permit, etc.) who are party to the consultation.

rise in upstream floodway elevations that may result by the reduced cross-sectional area of the slip lined culvert.

| General Project Information | YES | NO |
|--|--------------------------|-------------------------------------|
| Does the project occur within 0.25 miles of a known hibernaculum? | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| Does the project occur within 150 feet of a known maternity roost tree? | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| Does the project include forest conversion ⁴ ? (if yes, report acreage below) | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| Estimated total acres of forest conversion | | |
| If known, estimated acres ⁵ of forest conversion from April 1 to October 31 | | |
| If known, estimated acres of forest conversion from June 1 to July 31 ⁶ | | |
| Does the project include timber harvest? (if yes, report acreage below) | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| Estimated total acres of timber harvest | | |
| If known, estimated acres of timber harvest from April 1 to October 31 | | |
| If known, estimated acres of timber harvest from June 1 to July 31 | | |
| Does the project include prescribed fire? (if yes, report acreage below) | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| Estimated total acres of prescribed fire | | |
| If known, estimated acres of prescribed fire from April 1 to October 31 | | |
| If known, estimated acres of prescribed fire from June 1 to July 31 | | |
| Does the project install new wind turbines? (if yes, report capacity in MW below) | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| Estimated wind capacity (MW) | | |

Agency Determination:

By signing this form, the action agency determines that this project may affect the NLEB, but that any resulting incidental take of the NLEB is not prohibited by the final 4(d) rule.

If the USFWS does not respond within 30 days from submittal of this form, the action agency may presume that its determination is informed by the best available information and that its project responsibilities under 7(a)(2) with respect to the NLEB are fulfilled through the USFWS January 5, 2016, Programmatic BO. The action agency will update this determination annually for multi-year activities.

The action agency understands that the USFWS presumes that all activities are implemented as described herein. The action agency will promptly report any departures from the described activities to the appropriate USFWS Field Office. The action agency will provide the appropriate USFWS Field Office with the results of any surveys conducted for the NLEB. Involved parties will promptly notify the appropriate USFWS Field Office upon finding a dead, injured, or sick NLEB.

Signature: _____

Date Submitted: _____

⁴ Any activity that temporarily or permanently removes suitable forested habitat, including, but not limited to, tree removal from development, energy production and transmission, mining, agriculture, etc. (see page 48 of the BO).

⁵ If the project removes less than 10 trees and the acreage is unknown, report the acreage as less than 0.1 acre.

⁶ If the activity includes tree clearing in June and July, also include those acreage in April to October.

Northern Long-Eared Bat

(Myotis septentrionalis)

NLEB DESCRIPTION:

The Northern Long-Eared Bat (NLEB) is between 3" and 3.7" long with a wingspan of 9" to 10". NLEB are medium to dark brown on back and have tawny to pale brown undersides. NLEB have long ears. NLEB are nocturnal, they are active at night and sleep during the day.



Hibernating NLEB by Ann Froschauer USFWS

PROTECTION:

NLEB populations have been decimated by White-Nose Syndrome, a fungal disease that affects bats during hibernation. When a species experiences a significant population decline and is determined to be at risk, it may be listed under the Endangered Species Act (ESA). The NLEB was listed as threatened under the ESA on April 2, 2015. Threatened species

are likely to become endangered in the foreseeable future and endangered species are in danger of becoming extinct. This listing provides special protections for NLEB, which are intended to help the population recover.

HABITAT:

NLEB habitat is found throughout New Hampshire. NLEB hibernate in caves and mines called hibernacula during winter. NLEB swarm in wooded areas surrounding hibernacula in fall. During late spring and summer NLEB roost and forage in upland forests. During the day NLEB roost under bark and in tree crevices of both live trees and snags (dead trees). NLEB sometimes also roost in caves and structures, like buildings and bridges.

NH DOT CONSERVATION MEASURES:

NH DOT incorporates conservation measures into projects to protect the NLEB. The specific conservation measures for each project are found in the Summary of Environmental Issues. Dead and sick bats of any species must immediately be reported to the Bureau of Environment, call 271-3226. Contact Rebecca Martin at the Bureau of Environment 271-3226 for explanation of NLEB conservation measures.

MORE NLEB INFORMATION:

To learn more about the NLEB visit the USFWS website and search for the species by name.

FHWA Programmatic Consultation Avoidance and Mitigation Measure 1: Ensure all operators, employees, and contractors working in areas of known or presumed bat habitat are aware of all environmental commitments, including all applicable AMMs.

SPECIAL ATTENTION

LIMITED REUSE SOILS

Limited Reuse Soils (LRS) (see the Special Provision for Section 101.64“A”) are soils that are likely (based on “generator knowledge”¹) and/or demonstrated (through laboratory analyses) to contain contaminant concentrations in the range of the New Hampshire Department of Transportation (NHDOT)-specific Acceptable Reuse Concentrations (ARCs).²

Roadside LRS commonly encountered at NHDOT construction projects include:

- Soils with elevated concentrations of several polynuclear aromatic hydrocarbons (PAHs) and a few common metals;
- Soils with petroleum residue (total petroleum hydrocarbons (TPH)) related to the normal operation of motor vehicles and asphalt pavement;
- Roadway reclaimed stabilized base materials (asphalt pavement surface being pulverized in place along with the underlying road base); and
- Millings.

The NHDOT has determined that roadside LRS may be encountered in all topsoil within the limits of the existing right-of-way, regardless of its depth. In instances where topsoil is not present, soil from the top of ground to a depth of six (6) inches is considered to be LRS. Soils excavated from beyond and/or below the specified LRS limits that do not exhibit visual or olfactory evidence of potential contamination shall not require handling as impacted material.

Soils, which are not included in the definition of LRS, include:

- Soils containing solid waste present at more than *de minimis* amounts.
- Asbestos-impacted soils (i.e., soils containing asbestos or asbestos-containing material).
- Soils containing contaminants at concentrations above the Soil Remediation Standards (SRS) established in Env-Or 600 that are related to a release subject to regulation under Env-Or 600.
- Soils destined for disposal at an appropriately licensed facility, which are subject to analytical testing requirements of that receiving facility.
- *De minimus* volumes of LRS generated through NHDOT projects of limited scope (including guardrail installation, grubbing, etc.) provided soils generated or disturbed by these activities are not destined for off-site disposal or reuse by NHDOT (other than in-situ) or other parties.
- Soils located directly below existing paved surfaces and bridges
- Soils adjacent to access roads.

¹ Generator-knowledge includes the experience and awareness of NHDOT, the landowner (if not currently owned by NHDOT), and/or the NHDOT’s consultant regarding historical development and/or natural background conditions.

² ARCs are summarized in an attachment to the LRS Soil Management Plan.

Soils Management Plan and Project Operations Plan

Contractors are advised that roadside LRS have been identified within the project limits. As such, a Soil Management Plan (SMP) applies to this project. The SMP provides guidance for the identification, handling, storage, reuse, and disposal of LRS soils generated during construction activities.

This project will require the development of a Project Operations Plan (POP), which specifies the Contractor's means and methods for handling, and management of LRS. This will include the implementation of the best management practices (BMPs) described in the SMP. **No excavation in known areas of LRS may take place until the POP has been approved.** In addition, following approval of the POP, the Contractor is required to notify the NHDOT's Bureau of Environment (BOE) at least two weeks prior to beginning excavation in the area(s) of known LRS.

In general, the SMP requires that LRS be reused, with priority, within the project limits on each project, if feasible. Reuse restrictions require that LRS placement be in accordance with the BMPs described in the SMP and with applicable federal, state, and local regulations. If reuse within the project limits with the foregoing restrictions is not possible, alternative disposal options will be identified in the SMP. LRS shall not be stored or disposed of on private land.

The Contractor shall direct questions relating to any of the information herein to the Bureau of Environment's Contamination Program Manager.

**BEDFORD
16156****SPECIAL ATTENTION****SUPPORTING INFORMATION FOR
PROJECT OPERATIONS PLAN (POP) DEVELOPMENT**

As described in Item 697.31, Contractors are advised that a Project Operations Plan (POP) is required for the project due to the known presence and/or potential presence of:

| Media | Known to be Present | Potentially Present | Not Anticipated |
|---|-------------------------------------|-------------------------------------|--------------------------|
| Contaminated Soil (from a point source) | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| Limited Reuse Soil | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| Contaminated Groundwater | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> |

The POP shall specify the Contractor's means and methods for handling and management of the contaminated materials referenced above. The Contractor shall review available data included and referenced in these contract documents to determine their means and methods.

The Contractor shall prepare and submit a proposed POP to the Bureau of Environment through the Engineer at least 15 business days prior to excavation of any soil. **No work shall be scheduled (or performed) in known Roadside or Railroad limited reuse soil (LRS) areas or contaminated soil areas until the Bureau of Environment has indicated that the plan conforms to the requirements of the project.** The Department's Contamination Program/Environmental Consultant will review the proposed POP for compliance with state regulatory requirements, and provide comments to the Engineer. The comments on the proposed POP must be addressed by the Contractor in a revised POP in order to receive approval of the POP from the Department. No excavation of impacted/contaminated soil or dewatering activities in impacted/contaminated areas may take place until the POP has been approved by the Department.

The Contractor shall direct questions relating to any of the information herein to the Bureau of Environment (603-271-3226).

Major Considerations for POP Preparation

The following identifies major considerations for the POP preparation based on review of available information for the Project Area by the Department and/or the Department's Environmental Consultant:

| Item | Yes | No | Unknown |
|--|-------------------------------------|-------------------------------------|--------------------------|
| Listed Sites within Project Limits | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| Listed Sites within 1,000 feet of Project Limits | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| Known Contaminated Soil (from a point source) requiring Special Management | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| Limited Reuse Soil requiring Special Management | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| Potentially-Contaminated Soil – Contingency Plan | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| Dewatering of Known Contaminated Groundwater | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| Potentially-Contaminated Groundwater – Contingency Plan | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |

Additional information is available for review as follows:

- Soil Management Plan (SMP, see attached) prepared by the Department's Environmental Consultant.
- Department's available information: Contact the Bureau of Environment (603-271-3226) for review.

Impacted/Contaminated Soil

As it relates to impacted/contaminated soil, the Soil Management Plan includes:

- | | | |
|--|---|--|
| <input checked="" type="checkbox"/> Narrative description of contaminated soil (point source and/or LRS) | <input type="checkbox"/> Cross-sections annotated with vertical extent of contamination | <input type="checkbox"/> Plan sheets annotated with horizontal extent of contamination |
| <input checked="" type="checkbox"/> Stockpile management requirements | <input type="checkbox"/> Designated locations for staging contaminated soils | <input checked="" type="checkbox"/> Contingency plan for potentially contaminated soil |
| <input checked="" type="checkbox"/> Reuse criteria | <input checked="" type="checkbox"/> Segregation criteria | <input type="checkbox"/> Soil boring logs / subsurface data |
| <input type="checkbox"/> Tabular summary of available soil analytical data | <input checked="" type="checkbox"/> Decontamination requirements | <input type="checkbox"/> Other |

If the Contractor proposes alternate management methods to those outlined in the SMP, then the Contractor shall provide a detailed description of the proposed approach in the POP. The alternate method must be approved by the Bureau of Environment's Environmental Coordinator, in concurrence with Department's Environmental Consultant, prior to excavation activities in the area of known impacted/contaminated soils.

SOIL MANAGEMENT PLAN FOR LIMITED REUSE SOILS

Bowman Brook

Executive Summary v3.4

Culvert -Bedford- 16156

Applicability and Objectives

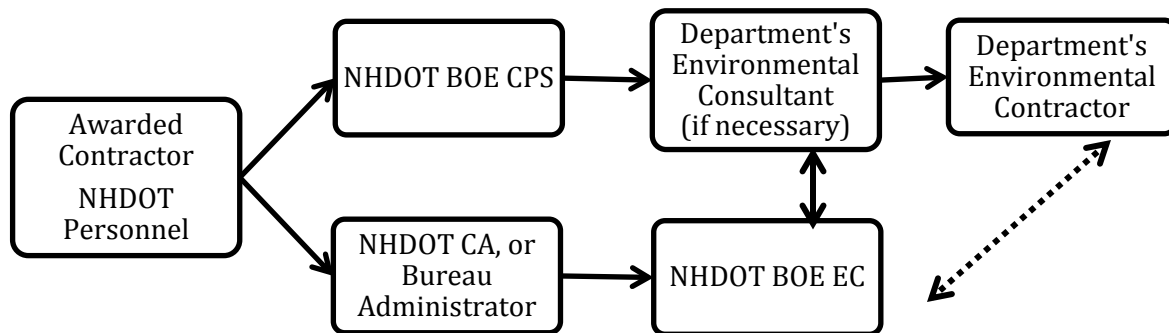
This Soil Management Plan (SMP) describes Best Management Practices (BMPs) that the NH Department of Transportation's (NHDOT) Project Contractor shall implement to manage Limited Reuse Soils (LRS), that may be encountered on NHDOT Construction Projects, or during construction-related activities (also referred to as *Projects*).

Notification Requirements

All Projects require the following notification procedures to the NHDOT Project Manager/lead person:

- At least two week's notification prior to the Contractor beginning excavation in the area of known LRS identified herein; and
- Immediate notification if the Contractor encounters other potentially contaminated soil and/or groundwater within Project Limits.

Notification Flow Chart



Contacts

| Contacts | Name | Office | Cell |
|--|--|--------------|------|
| NHDOT DCE ¹ or Bureau Administrator | Paul Metcalf | 603-271-2571 | |
| NHDOT BOE CPS ² | David Kammer | 603-271-3226 | |
| NHDOT BOE EC ³ | Ron Crickard | 603-271-3226 | |
| NHDOT's Environmental Consultant | Contacts will be determined after award. Please contact CPS for contact information. | | |

¹ District Construction Engineer

² Contamination Program Specialist

³ Environmental Coordinator

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1.0 INTRODUCTION

1.1 Project Description and Project-Specific Considerations

This project involves the rehabilitation of an existing 87"x 83" corrugated metal pipe that carries Bowman Brook under NH Route 114, the NH 114 Bridge over Old Bedford Road (Br. No. 151/151), and Old Bedford Road in Bedford, NH. The pipe will be lined with Centrifugally Cast Concrete Liner for its entire length. Ancillary work includes construction of two headwalls and scour protection at the inlet and outlet. The project limits along NH 114 begin approximately 335 feet southeast of Bridge No. 151/151 and proceed approximately 575 feet north-westerly to the end.

It is anticipated that LRS, as defined in Section 1.3 below, will require handling during this Project. Based on the available information, it is anticipated that LRS can be stockpiled within the Project Limits and within the Right of Way in accordance with the requirements of this plan. Furthermore, it is anticipated that LRS can be re-used within the Project Limits in accordance with the requirements of this plan.

Based on information provided by NHDOT, suspect point source contamination has not been identified as a concern near the project. Therefore, it is not anticipated that contaminated soil and/or groundwater associated with point sources will be encountered. If unanticipated contamination is encountered during construction, it will be managed as described in Section 5.0 of this plan.

1.2 Objective

This Generic Soil Management Plan (SMP) describes BMPs that the NHDOT's Project Contractor shall implement to manage LRS that may be encountered during execution of the proposed work, as indicated in project-specific documents. Application of the BMPs is anticipated to reduce the potential for exposure of workers and the public to potential contaminant identified/assumed to be in the LRS, and maintain conditions that are protective of human health and the environment.

This SMP will be included in project-specific documents to support the Prosecution of Work (POW), and/or other related administrative requirements and technical specifications, for the Contractor to address known, suspected, and/or unanticipated LRS. As applicable and required by the project and/or contract documents, the Contractor for contracted projects, shall prepare and implement a Project Operations Plan (POP) that describes the Contractor's means and methods to adhere to the provisions of this SMP.

1.3 Applicability and Definitions

This SMP applies to management of LRS that is not otherwise addressed in a NHDES-approved Remedial Action Plan (RAP), or other NHDES-approved project-specific documents based on requirements to comply with the provisions of NHDES regulations (i.e., Env-Or 600 and Env-Sw 903), and with pertinent waivers issued by NHDES. The use of this SMP in lieu of a project-specific document or RAP will be determined by NHDOT based on

performance of project-specific environmental due diligence activities, including a review of NHDES-listed sites⁴ within a 1,000-foot radius of the Project Limits⁵.

For the purposes of this SMP:

- **LRS** are defined as: soils adjacent to roadways, on property under the control of NHDOT, that require removal or relocation, that are likely (based on “generator knowledge”⁶) and/or demonstrated (through field screening or laboratory analyses) to contain contaminants between naturally occurring background concentrations and NHDOT-specific Allowable Reuse Concentrations (ARCs) provided in the attached table. LRS is associated with impacts related to surficial soil within the roadway network due to the presence and breakdown of asphalt pavement, the normal operation of motor vehicles, and other “non-point sources” of pollution in these areas.
 - LRS may be present in street wastes (e.g., soils generated through various activities, such as street sweeping, ditch maintenance, catch basin cleanout, and cleaning of stormwater management infrastructure).
 - LRS may be encountered in all topsoil adjacent to roadway surfaces on property under the control of NHDOT. In instances where topsoil is not present, LRS can be expected to be encountered in soil from the top of ground to a depth of six (6) inches. *NHDOT’s understanding of the specified lateral and vertical limits adjacent to roadways may be updated periodically, and shared with NHDES, based on published research and/or state-specific analytical data.*
 - Soils excavated from beyond and/or below the specified LRS limits, that do not exhibit visual or olfactory evidence of potential contamination, shall not require handling as impacted material, but considered unregulated.
 - LRS also includes any ground or pulverized asphaltic materials.
- **Project Limits** are defined as: project-specific areas under the control of NHDOT, subject to transportation-related construction, and /or construction-related activities that may include easements, rights-of-way, roadways, bridges, drainage features, sidewalks, and other property under the control of NHDOT.

⁴ This includes all sites on the NHDES OneStop database, including both active and closed remediation sites.

⁵ Project-specific areas under the control of NHDOT subject to transportation-related construction, and/or construction-related activities that may include easements, rights-of-way, roadways, bridges, drainage features, sidewalks, and other property under the control of NHDOT.

⁶ Generator-knowledge includes the experience and awareness of NHDOT, the landowner (if not currently owned by NHDOT), and/or the NHDOT’s consultant regarding current conditions, historic development, previous LRS reuse, and/or natural background conditions.

2.0 AREA OF CONCERN

As indicated above, LRS may be encountered within the limits of the existing right-of-way. The assumed area of impact identified in Section 1.2 above are hereafter referred to as the LRS limits. Soils excavated from beyond and/or below the specified LRS limits that do not exhibit visual or olfactory evidence⁷ of potential contamination shall not require handling as impacted material.

NHDOT staff shall review the project design documents in conjunction with readily available NHDES files to determine if the project is anticipated to disturb soil at and/or downgradient from NHDES-listed sites. The Contractor shall be aware that contaminated soil may also be present in unknown locations at and in proximity to the Project Limits due to current and/or historic site development, use, practices and/or naturally-occurring geologic conditions.

If the Contractor encounters unanticipated potentially contaminated soil during construction, the Contractor shall STOP WORK and contact the NHDOT's Bureau of Environment (603-271-3226) immediately. NHDOT will assist with Contractor with requirements for handling these soils.

3.0 CONSTITUENTS OF CONCERN / ALLOWABLE REUSE CONCENTRATIONS

For this project, it is anticipated that soil in the designated area of the project (soils adjacent to roadways, on property under the control of NHDOT, that require removal or relocation to complete construction/construction activities) is impacted by roadside soils/fill, also known as LRS.

Statewide analytical data collected by NHDOT, as well as nationwide information indicates that roadside soils commonly contain metals (primarily arsenic), polycyclic aromatic hydrocarbons (PAHs) and total petroleum hydrocarbons (TPH) at concentrations above naturally occurring background conditions, and in some cases at concentrations exceeding the applicable SRS.⁸

Available LRS analytical data from the State of New Hampshire are included in Appendix A; expected concentrations for "Acceptable Analytical Concentrations Allowable for Reuse of LRS" within the Project Limits are also identified in Appendix A.

4.0 BMPs IN THE PROJECT LIMITS

The Contractor shall make every effort to utilize LRS in the Project Limits on property under the control of NHDOT as a priority over importing fill unless otherwise directed, provided that the LRS is geotechnically suitable for reuse, and the handling and placement are

⁷ Throughout excavation activities, excavated soils shall be examined for visual and/or olfactory evidence of contamination. Visual evidence shall generally include the presence of visual staining or discoloration. Olfactory evidence shall include odd or unusual odors (e.g., petroleum-like, solvent-like).

⁸ NHDES Soil Remediation Standards (SRS, promulgated in Env-Or 600 Table 600-2, June 2015). When applied by NHDOT, this SMP should always refer to the version of Env-Or 600 current at the time of use.

completed according to the BMPs described in this section, and to applicable federal, state, and local rules and regulations.

The LRS management approach(s) (e.g., reuse within the Project Limits, off-site disposal) will be identified in project-specific documents.

4.1 Health and Safety

The Contractor shall plan and conduct operations to prevent damage to existing structures, safeguard people and property, and minimize disruptions to site traffic. The Contractor shall provide safe working conditions in compliance with applicable local, state and federal regulations, including health and safety regulations enforced by the Occupational Safety and Health Administration (OSHA) and/or US Department of Labor, as appropriate.

4.2 Excavation, Handling, and Placement

The Contractor, shall complete earthwork related to LRS as required to meet the lines and grades specified in the project plans and as required by the project-specific contract documents. The work shall be completed to disturb the smallest area of LRS as possible.

NHDOT designs, constructs and maintains all projects under its control so as to prevent or control erosion of the land, and provide appropriate long-term stormwater management and treatment practices, in accordance with contract provisions, engineering standards, guidelines, BMPs, and all applicable regulatory standards, which also apply to the excavation, handling and placement of LRS.

Work shall stop if events occur or are imminent that might generate uncontrolled runoff, such as heavy rainfalls, or dust emissions, such as wind storms.

In all aspects of the work, the Contractor shall exercise care and diligence to prevent the mixing of regulated wastes with uncontaminated materials, and shall prevent migration of wastes and environmentally regulated substances. As LRS material is excavated, care shall be taken to segregate and separately stockpile excavated soil based on color, odor, or other physical characteristics considered potentially significant with regard to indicating the level and type of contamination.

LRS can be temporarily stockpiled (as described in Section 4.3 of this SMP) or handled directly as “cut to fill” without segregation or stockpiling to facilitate the following LRS management options:

4.2.1 Reuse within Project Limits

LRS determined to be suitable for reuse within Project Limits shall be:

- Reused within the footprint of previously-placed NHDOT roadway construction material; or
- Placed on property under the control of NHDOT; and
- Placed outside of high-intensity public recreational use areas (e.g., rail trails), unless:

- Placed two (2) feet below the final ground surface, covered with clean granular fill, or
 - Addressed through another NHDES-approved site-specific capping system.
- Placed outside of residential and playground applications, as well as land used for the production of crops for direct human consumption;
- If reused within 100-year floodplains:
 - Available reuse areas outside of 100-year floodplains will have been used first, **or**
 - Available reuse areas outside of 100-year floodplains are unavailable, **and**
 - Reuse will adhere to the erosion and stormwater management and treatment provisions identified above (Section 4.2), as well as other applicable State and Federal regulations, regarding temporary and permanent, erosion controls and stabilization.
- More than 50 feet from a drinking water well or public drinking water supply;
- If reused within 100 feet of water bodies, wetlands, or tidal buffer zones:
 - Available reuse areas beyond 100 feet from water bodies, wetlands, or tidal buffer zones are used first, **or**
 - Available reuse areas beyond 100 feet from water bodies, wetlands, or tidal buffer zones are unavailable or have been used first, **and**
 - Reuse will adhere to the erosion and stormwater management and treatment provisions identified above (Section 4.2), as well as other applicable State and Federal regulations, regarding temporary and permanent, erosion controls and stabilization.
- Outside of drainage features (used for stormwater infiltration), unless adequate separation to groundwater is provided; and
- Outside of other areas that may reasonably be expected to erode during a significant storm event, including areas where erosion might directly discharge to surface water.

LRS can be temporarily stockpiled (as described in Section 4.3 of this SMP) or handled directly as “cut to fill” without segregation or stockpiling.

Where LRS is consolidated into “cells” within the Project Limits in areas that meet the setbacks to environmental receptors outlined above, the horizontal and vertical locations of the LRS consolidation areas shall be shown on as-built drawings provided by the Contractor for NHDOT to track the location of the LRS so that the soils can be managed properly during future re-construction activities, if necessary. The method to obtain the as-built locations shall be consistent with the method (e.g., GPS, survey, etc.) required by the contract documents, or as internally directed.

As approved by NHDOT, if LRS is reused within the LRS footprint, rather than placed in consolidation area(s), the horizontal and vertical locations of these reuse areas are not required to be shown on as-built drawings.

4.2.2 Stockpiling for Future Reuse

As discussed in Section 6.3 of this SMP, LRS can be temporarily stockpiled on property under the control of NHDOT for future reuse in accordance with the requirements of Section 4.3.

4.2.3 Off-Site Disposal

LRS generated by the project that cannot be reused as defined in Section 4.2.1 of this SMP can be managed in accordance with Section 6.0 of this SMP.

4.3 Stockpile Management

The Contractor shall manage LRS stockpiles to prevent the discharge of contaminants to the groundwater and surrounding soil⁹. The LRS stockpiles shall be kept separate from other on-site soil stockpiles. Specifically:

- The Contractor shall designate temporary stockpile areas, with the location subject to the approval of the NHDOT. NHDOT shall ensure that stockpile locations are not staged near sensitive human health receptors such as public and private water supply wells or sensitive environmental receptors such as wetlands, surface water bodies, or marine environments.
- The Contractor shall establish separate stockpiles for LRS, other unanticipated contaminated soils, and other on-site stockpiled non-LRS stockpiles as encountered.
- The transfer of potentially contaminated materials from the excavation(s) to designated temporary stockpile areas shall be conducted in such a manner as to limit the spread of LRS. If a stockpile is sampled for disposal characterization analyses as described elsewhere in this SMP, then the Contractor shall not add additional material to the stockpile.
- Consistent with applicable State and Federal regulations, regarding temporary and permanent erosion controls and stabilization, the stockpile shall be graded such that stormwater runoff is diverted away from stockpiled materials (with no runoff). The Contractor shall implement appropriate erosion and sediment control measures (e.g., silt fence, hay/straw bales) to prevent stormwater runoff and associated erosion by wind or water, and transport of the soil.
- The Contractor shall secure the stockpile areas (e.g. using caution flagging, fencing, or other equivalent means, as approved by NHDOT) to limit unauthorized entry and to limit contact of site workers and public access to stockpiled materials.
- The Contractor shall identify the stockpile with the origin and date of generation.

⁹ Methods to prevent the discharge of contaminants to the groundwater and surrounding soil during construction may include, among others, preventing the soil from contacting the ground, precipitation, and/or stormwater runoff via the use of 6-mil polyethylene sheeting (with applicable management practices) over and under stockpiles; or over excavating existing soil beneath and around stockpiles once removed to ensure that all stockpiled LRS is removed from the site.

- The Contractor shall store the segregated soils onsite for a period not to exceed the timeframe identified in the project-specific contract documents without NHDOT approval.

4.4 Equipment Cleaning

Cleaning of all equipment (e.g., tools, heavy machinery, excavating and handling equipment) shall be completed in accordance with the requirements of the contract documents, or internal NHDOT procedures.

5.0 UNANTICIPATED CONDITIONS

If the Contractor encounters unanticipated, potentially contaminated soil, the Contractor shall immediately STOP WORK, notify the NHDOT, and secure the area. The Contractor shall provide personnel trained in accordance with OSHA 1910.120 to continue work in this area.

The limits of potentially contaminated soil will be established in the field based on the NHDOT Engineer's (i.e., Environmental Consultant, NHDOT construction personnel, or CPS, as defined in the project-specific contract documents) observations and field screening. Field screening completed by the Engineer will include using headspace sampling techniques for total volatile organic compounds (VOCs) using an appropriately calibrated photoionization detector (PID), or other field screening method appropriate for the suspected contaminant. Screening shall be based on visual and olfactory evidence at a frequency identified by the Engineer based on the extent of excavation.

If visual or olfactory evidence, or headspace screening of soils indicate a PID value above a threshold criterion of 50 ppm, the Contractor shall (when authorized by the Engineer) segregate and stockpile the soil as described herein for subsequent laboratory analysis. In accordance with Section 4.3 above, the Contractor shall establish separate stockpiles for LRS and other stockpiled soils, as encountered.

6.0 BMPS FOR EXCESS LRS AND UNANTICIPATED IMPACTED MATERIAL

This section describes the characterization, handling, and disposal requirements when excess LRS is generated by the project that cannot be reused as defined herein. This section also applies to management of unanticipated potentially contaminated soil, if encountered, on a project.

6.1 Characterization of Excess LRS

Excess stockpiled soils and unanticipated impacted materials that cannot be reused as defined herein will be sampled and analyzed for disposal characterization¹⁰. The entity responsible for the disposal characterization (e.g., NHDOT's Environmental Consultant or

¹⁰ Excess LRS generated from construction activities undertaken by internal NHDOT construction personnel that does not exhibit visual or olfactory evidence of contamination may be transported to a NHDOT-owned facility for temporary stockpiling until it may be reused along a roadway, within Project Limits, on property under the control of NHDOT, or in another use as may be individually approved by NHDES.

CPS) will be identified in the project-specific contract documents, or internal NHDOT documentation.

Disposal characterization will follow NHDES regulations (i.e., Env-Or 600 and Env-Sw 903), and the requirements of the proposed receiving facility:

- If the quantity of stockpiled LRS is less than 50 tons, sampling and analysis will not be completed, except as required by the receiving facility, in accordance with Env-Or 611.04 (c).
- If the quantity of stockpiled LRS is greater than 50 tons, sampling and analysis will, at a minimum, be based on the requirements of Env-Or-611.04. One composite soil sample will be collected per 200 tons of excavated material up to 2,000 tons, and then one composite soil sample for every additional 500 tons. The composite samples will be obtained from the stockpiled soils by homogenizing at least eight (8) discrete samples collected from newly exposed soil a minimum of 12 inches deep within the stockpile. Samples collected for VOC analysis will be collected as individual methanol-preserved soil samples for the laboratory to composite the individual samples (instead of compositing the soils in the field).

The soil samples will be submitted for disposal characterization parameters consistent with the requirements of the proposed receiving facility, which may include the following, or a subset thereof, and not be limited to: VOCs, TPH, total RCRA-8 metals (arsenic, barium, cadmium, chromium, lead, mercury, selenium, and silver), SVOCs or PAHs, pesticides, herbicides, PCBs, ignitability/flashpoint, corrosivity/pH, reactive sulfide, and reactive cyanide.

Approximately two weeks will be required for analysis of the soil (stockpile) samples. The Contractor shall continue to manage the stockpile as described in Section 4.3 of this SMP until the final disposition is determined and the management approach is implemented.

Re-handling of soils in designated stockpile storage areas or exporting those soils from the site shall not occur without prior approval of the NHDOT Engineer or CPS. Regulated soils shall not be removed from the site unless the procedures described herein are implemented.

6.2 Disposition of Regulated Soils

Based on NHDOT experience, impacted soils are not expected to be considered hazardous wastes; however, the ultimate disposition of soils that cannot be reused shall depend on the results of stockpile characterization and an assessment of relevant management options as described herein.

6.2.1 Unregulated Soil

Unregulated soil will include excavated material passing the initial classification criteria (visual and olfactory observations) that does not contain construction-type or other debris (e.g., municipal solid waste). This material shall be managed as unregulated soil, unless

analytical data or generator knowledge indicates the presence of contaminants of concern at concentrations other than what would be naturally occurring in the environment. Unless otherwise provided in project documents, this soil does not need to be managed as LRS, Non-Hazardous Contaminated Soil (NCS), Non-Hazardous Oil-Contaminated Soil (NOCS), or hazardous material.

Excavated material failing to meet the criteria for unregulated soil for which on-site reuse has not been identified and is intended to potentially be shipped off-site for disposal, shall be sampled and tested by a qualified Environmental Consultant or CPS, as necessary, to determine the potential for on-site reuse or off-site treatment or disposal/recycling options for this material. Potentially contaminated soil designated for additional testing shall be stockpiled in accordance with applicable rules and this SMP.

6.2.2 Limited Reuse Soils

LRS are the soils as defined herein. Similarly, soils that are chemically analyzed and contain contaminants at concentrations up to the limits provided in Appendix A shall be managed as LRS in accordance with the BMPs defined herein. LRS shall not be transported off the site for reuse at other properties unless otherwise authorized herein.

6.2.3 Non-Hazardous Contaminated Soil (NCS)

NCS is defined in Env-Or 611.02, and consists of soils that contain regulated contaminants, are not a hazardous waste as defined in RSA 147-B:2, VII, and cannot be certified as NOCS pursuant to Env-Or 611.03. Presuming the soil is not considered a RCRA “listed waste,” the determination as to whether soil is NCS shall be made based on the results of laboratory analyses.

6.2.4 Non-Hazardous Oil-Contaminated Soil (NOCS)

NOCS is defined in Env-Or 611.02, and consists of soil that is contaminated with oil, is not a hazardous waste, and is certified as required by Env-Or 611.03, which requires documentation that the contamination is derived from an oil discharge from a household or regulated UST facility, and there is no reason to suspect that the soil may have been contaminated by a hazardous waste.

6.2.5 Hazardous Waste Contaminated Soil

Hazardous waste contaminated soil are those soils characterized as a hazardous waste based on the requirements outlined in RSA 147-B:2 VIII, and the hazardous waste identification requirements outlined in Env-Hw 400. Presuming the soil is not considered a Resource Conservation and Recovery Act (RCRA) “listed waste,” these soils will be classified as hazardous waste based on the results of laboratory analyses completed (e.g., toxicity characteristic leaching potential [TCLP]). These soils shall be stored, treated, and disposed of in accordance with applicable local, state, and federal requirements, including the New Hampshire Hazardous Waste Rules Env-HW 100-1100.

6.3 Off-Site Management

BMPs for stockpile management provided in Section 4.3 shall apply to soils being temporarily stored outside of the Project Limits, on property under the control of NHDOT, with NHDOT approval.

6.4 Off-Site Disposal

If NHDOT has determined that reuse within the Project Limits with the foregoing BMPs is not possible and that an alternate, site-specific SMP approved by NHDES is not appropriate, then the excess soil will be managed as waste for removal to an authorized treatment or disposal facility holding appropriate federal, state, or local permits, licenses, or approvals (in accordance with Env-Sw 903). The transport and disposal of the material will be managed by either the Contractor or by the CPS as required by the project-specific contract documents.

The LRS shall be managed in general conformance with the following criteria:

- Excess LRS shall not be removed from the Project Limits until the results of chemical analyses have been received and the materials have been properly classified and approved by the NHDOT CPS or the NHDOT's Environmental Consultant.
- Regulated soil or hazardous waste transported off-site shall be loaded into properly licensed and permitted vehicles, and transported directly to selected disposal or recycling facilities. Temporary storage of regulated soils at an off-site facility shall only be done with the pre-approval of the NHDOT. Hazardous waste shall not be temporarily stored at an off-site facility.
- Documentation of any handling, management, sampling and analysis, transportation and off-site disposal performed by the Contractor shall be provided by the Contractor to the NHDOT. This documentation does not include sampling and analysis, transportation and off-site disposal that may be performed by NHDOT's CPS and/or Environmental Consultant.
- If off-site transport and disposal of contaminated soil should occur, any documentation related to these efforts will need to be maintained and provided to NHDOT. More specifically, documentation related to off-site transport and disposal of contaminated soil, including but not limited to, bills-of-lading/manifests, weigh tickets, analytical reports and waste profiles, shall be provided by the Contractor to NHDOT's Engineer within five (5) business days of receipt.
- Once final soil disposal options have been approved by the NHDOT or its qualified Environmental Consultant, arrangement for the transport and disposal of NCS or hazardous materials shall be made. Appropriate documentation (e.g., bills of lading, manifests) shall be used to transport soil from the site to the selected treatment or disposal facility.

- The transporter of contaminated soil for off-site treatment or disposal shall be licensed to transport regulated soil, or hazardous material, as appropriate, to appropriate licensed disposal or recycling facilities.

APPENDIX A

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Table 1
Summary of Available Analytical Data
NHDOT Fill Projects
New Hampshire

| Concentrations and Reference Values in mg/kg | | | | | | | | | | | | | | | | |
|--|---------------------------------|-------------------------------------|----------------------------------|--------------------|---------------|--------------------------|--------------------------|--------------------------|-------------------|-----------|-------------|------------|-------------|------------------|-------------|--------------------|
| Sample Identification | Acceptable Reuse Concentrations | Maximum Fill Concentration Detected | RCMP S-1 Soil Standards / NH SRS | RCMP S-3 Standards | NH Background | D4 | D6 | D5 | D5 | D3 | D3 | D3 | D2 | D4 | D2 | TPK |
| Sample Location | | | | | | CB Storage Bin Composite | CB Storage Bin Composite | CB Storage Bin Composite | PSS27 | 324 | 301,307,308 | Rte 107 CB | Wilmot CBSB | Temple Composite | CB Sediment | Hooksett Composite |
| | | | | | | | | | Vehicle Wash Site | 136464 | 135243 | 135244 | 133077 | L1315013 | L1315014 | L1315012 |
| Sample Date | | | | | | 4/20/2015 | 4/28/2015 | 4/21/2015 | 12/23/2014 | 10/6/2014 | 8/28/2014 | 8/28/2014 | 6/30/2014 | 8/9/2013 | 8/5/2013 | 8/5/2013 |
| Metals | | | | | | | | | | | | | | | | |
| Arsenic | 25 | 15 | 11 | 47 | 11 | 2.8 | 4.8 | 10 | 5.6 | 2.4 | 2.7 | 6.1 | 1.7 | 3 | 2.3 | 4.6 |
| Barium | 1,000 | 70 | 1,000 | 5,000 | NE | 15 | 15 | 21 | 19 | 22 | 21 | 25 | 23 | 13 | 20 | 30 |
| Cadmium | 33 | 1 | 33 | 280 | 2 | ND | ND | ND | ND | ND | ND | 0.5 | ND | ND | ND | 0.8 |
| Chromium (VI/Total) | 130/1,000 | 260 | 1,000 | 5,000 | 33 | 8.2 | 12 | 42 | 14 | 12 | 12 | 25 | 11 | 11 | 7.4 | 34 |
| Lead | 100 | 50 | 400 | 400 | 51 | 7.7 | 12 | 12 | 9.5 | 6.2 | 22 | 19 | 15 | 6.6 | 4.2 | 17 |
| Mercury | 7 | 0.16 | 7 | 52 | 0.3 | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| Selenium | 180 | ND | 180 | 1,600 | 5 | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| Silver | 89 | ND | 89 | 690 | NE | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| VOCs | | | | | | | | | | | | | | | | |
| Benzene | 0.3 | ND | 0.3 | 0.3 | NE | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| Dichloroethane, 1,2- | 0.1 | ND | 0.1 | 0.1 | NE | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| Isopropylbenzene | 330 | ND | 330 | 330 | NE | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| Methyl-t-butyl ether | 0.2 | ND | 0.2 | 0.2 | NE | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| Toluene | 100 | 0.175 | 100 | 100 | NE | ND | ND | ND | ND | ND | ND | ND | ND | 0.0042 | 0.0078 | ND |
| Xylene (total) | 500 | 0.440 | 500 | 1,500 | NE | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| Butylbenzene, n- | 110 | ND | 110 | 110 | NE | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| Butylbenzene, sec- | 130 | ND | 130 | 130 | NE | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| Butylbenzene, tert- | 100 | ND | 100 | 100 | NE | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| Isopropyl toluene, 4- | NE | 0.37 | -- | -- | NE | ND | ND | ND | ND | ND | ND | ND | ND | ND | 0.0011 | ND |
| Propylbenzene, n- | 85 | ND | 85 | 85 | NE | ND | ND | ND | ND | ND | | | ND | ND | ND | ND |
| Trimethylbenzene, 1,2,4- | 130 | ND | 130 | 130 | NE | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| Trimethylbenzene, 1,3,5- | 96 | ND | 96 | 96 | NE | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| PAHs - Carcinogenic | | | | | | | | | | | | | | | | |
| Benzo(a)anthracene | 4 | 2.28 | 1 | 52 | NE | 0.49 | 0.52 | 0.7 | 0.17 | 0.19 | ND | 1.5 | 1.2 | ND | 0.77 | ND |
| Benzo(a)pyrene | 5 | 2.71 | 0.7 | 5 | NE | 0.54 | 0.63 | 0.73 | 0.2 | 0.23 | 0.49 | 1.4 | 1.1 | ND | ND | ND |
| Benzo(b)flouranthene | 52 | 5.23 | 1 | 52 | NE | 0.78 | 0.92 | 1 | 0.27 | 0.34 | 0.69 | 2.4 | 1.5 | ND | 0.75 | ND |
| Benzo(k)flouranthene | 36 | 1.6 | 12 | 520 | NE | 0.27 | 0.34 | 0.35 | 0.091 | 0.11 | ND | 0.9 | 0.5 | ND | ND | ND |
| Chrysene | 120 | 3.05 | 120 | 5,200 | NE | 0.7 | 0.74 | 0.82 | 0.25 | 0.27 | 0.57 | 1.9 | 1.3 | ND | 0.92 | ND |
| Dibenzo(a,h)anthracene | 5 | 0.11 | 0.7 | 5 | NE | ND | 0.11 | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| Indeno(1,2,3-cd)pyrene | 4 | 1.4 | 1 | 52 | NE | 0.42 | 0.49 | 0.5 | 0.14 | 0.17 | 0.45 | 1.3 | 0.79 | ND | ND | ND |
| PAHs - noncarcinogenic | | | | | | | | | | | | | | | | |
| Acenaphthene | 340 | ND | 340 | 340 | NE | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| Acenaphthylene | 490 | 1.1 | 490 | 490 | NE | ND | ND | ND | 0.088 | ND | ND | ND | 0.44 | ND | ND | ND |
| Anthracene | 2,500 | 0.68 | 1,000 | 5,000 | NE | ND | 0.12 | ND | ND | ND | ND | 0.46 | ND | ND | ND | ND |
| Fluoranthene | 2,500 | 6.33 | 960 | 5,000 | NE | 1.2 | 1.3 | 1.9 | 0.39 | 0.51 | 1 | 4.5 | 2.7 | ND | 1.5 | ND |
| Fluorene | 77 | ND | 77 | 77 | NE | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| Methylnaphthalene, 2- | 96 | ND | 96 | 100 | NE | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| Naphthalene | 5 | ND | 5 | 5 | NE | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| Benzo (g,h,i) perylene | NE | 1.2 | NE | NE | NE | 0.4 | 0.48 | 0.45 | 0.14 | 0.15 | 0.47 | 1.2 | 0.8 | ND | 0 | ND |
| Phenanthrene | NE | 3.2 | NE | NE | NE | 0.72 | 0.58 | 0.95 | 0.22 | 0.21 | 0.51 | 2.5 | 1.4 | ND | 1 | ND |
| Pyrene | 720 | 4.4 | 720 | 5,000 | NE | 1.0 | 1.1 | 1.5 | 0.4 | 0.39 | 0.93 | 3.3 | 2.7 | ND | 1.5 | ND |

Notes:

1. Data were provided to Sanborn, Head & Associates, Inc. (Sanborn Head) by the New Hampshire Department of Transportation (NHDOT).
2. Concentrations are provided in milligrams per kilogram (mg/kg) which are equivalent to parts per million (ppm).
3. "<" indicates the analyte was not detected above the indicated laboratory reporting limit.
"-" indicates the sample was not analyzed for this parameter.
"NE" indicates a standard has not been established for this parameter.
"ND" indicates that this parameter was not detected at a concentration greater than the laboratory reporting limit.
4. The Soil Remediation Standards (SRS) were promulgated in Env-Or 600 (June 2015). The SRS are generally equivalent to the Method 1 Category S-1 Soil Standards defined by the New Hampshire Department of Environmental Services (NHDES) in the "Contaminated Sites Risk Characterization and Management Policy" (RCMP), dated January 1998 with 2000-2013 revisions and addenda. Method 1 Category S-2 and S-3 Soil Standards defined by the RCMP are also provided.
5. A bold value indicates the detected concentration exceeds the SRS.
6. A shaded value indicates the detected concentration exceeds the Acceptable Reuse Concentration.

Table 1
Summary of Available Analytical Data
NHDOT Fill Projects
New Hampshire

| Sample Identification | Acceptable Reuse Concentrations | Maximum Fill Concentration Detected | RCMP S-1 Soil Standards / NH SRS | RCMP S-3 Standards | NH Background | D5 | D1 | D3 | D6 | D6 | D6 | D6 | TPK | TPK | TPK | D5 | D5 | D6 | D6 |
|-------------------------------|---------------------------------|-------------------------------------|----------------------------------|--------------------|---------------|-------------|-------------|-------------|---------------|---------------------|----------------|------------------|-----------|-----------|-----------|----------|----------|-------------|-----------|
| Sample Location | | | | | | CB Sediment | CB Sediment | Meredith | Rye Stockpile | CB-602-610-NHSS-611 | D6-CB-603-NHSS | CB 608, 609, 611 | Hooksett | Dover | Hampton | Bow 505 | Bow 505 | Seabrook CB | Rye CB |
| Sample Date | | | | | | L1314478 | L1314434 | L1311216-01 | L1311216-02 | 67831 | 65523 | 64944 | 64397-1 | 64397-2 | 94387-3 | 64651 | 64651 | 59213-1 | 59213-2 |
| | | | | | | 7/29/2013 | 7/29/2013 | 6/18/2013 | 6/18/2013 | 9/15/2010 | 12/10/2009 | 10/8/2009 | 7/23/2009 | 7/23/2009 | 7/23/2009 | 9/3/2009 | 9/3/2009 | 7/16/2007 | 7/16/2007 |
| Metals | | | | | | | | | | | | | | | | | | | |
| Arsenic | 25 | 15 | 11 | 47 | 11 | 15 | 1.5 | 12 | 7.8 | 4.2 | 4 | 5.5 | 5.4 | 4.5 | 5.2 | 2.9 | 2.9 | 7 | 4.7 |
| Barium | 1,000 | 70 | 1,000 | 5,000 | NE | 21 | 20 | 70 | 14 | 20 | 22 | 36 | 2.5 | 54 | 44 | 14 | 14 | 20± | 10± |
| Cadmium | 33 | 1 | 33 | 280 | 2 | 1.3 | ND | 1.1 | ND | ND | 0.3± | ND | 0.86 | 1.2 | 0.92 | ND | ND | ND | ND |
| Chromium (VI/Total) | 130/1,000 | 260 | 1,000 | 5,000 | 33 | 20 | 11 | 24 | 12 | 29 | 15 | 23 | 36 | 42 | 260 | 10 | 10 | 21 | 13 |
| Lead | 100 | 50 | 400 | 400 | 51 | 29 | 16 | 32 | 13 | 15 | 17 | 33 | 21 | 16 | 37 | 15 | 15 | 50 | 17 |
| Mercury | 7 | 0.16 | 7 | 52 | 0.3 | ND | ND | ND | ND | 0.16 | ND | ND | ND | ND | ND | ND | ND | 0.08 | 0.03± |
| Selenium | 180 | ND | 180 | 1,600 | 5 | ND | ND | ND | ND | ND | ND | 0.4± | ND | ND | ND | ND | ND | 0.1± | 0.1± |
| Silver | 89 | ND | 89 | 690 | NE | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| VOCs | | | | | | | | | | | | | | | | | | | |
| Benzene | 0.3 | ND | 0.3 | 0.3 | NE | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| Dichloroethane, 1,2- | 0.1 | ND | 0.1 | 0.1 | NE | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| Isopropylbenzene | 330 | ND | 330 | 330 | NE | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| Methyl-t-butyl ether | 0.2 | ND | 0.2 | 0.2 | NE | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| Toluene | 100 | 0.175 | 100 | 100 | NE | ND | 0.13 | ND | ND | ND | ND | ND | 0.17 | ND | ND | 0.175 | 0.175 | ND | ND |
| Xylene (total) | 500 | 0.440 | 500 | 1,500 | NE | ND | ND | 0.44 | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| Butylbenzene, n- | 110 | ND | 110 | 110 | NE | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| Butylbenzene, sec- | 130 | ND | 130 | 130 | NE | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| Butylbenzene, tert- | 100 | ND | 100 | 100 | NE | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| Isopropyl toluene, 4- | NE | 0.37 | -- | -- | NE | ND | ND | 0.37 | ND | ND | ND | ND | ND | ND | ND | 0.132 | 0.132 | ND | ND |
| Propylbenzene, n- | 85 | ND | 85 | 85 | NE | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| Trimethylbenzene, 1,2,4- | 130 | ND | 130 | 130 | NE | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| Trimethylbenzene, 1,3,5- | 96 | ND | 96 | 96 | NE | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND | ND |
| PAHs - Carcinogenic | | | | | | | | | | | | | | | | | | | |
| Benzo(a)anthracene | 4 | 2.28 | 1 | 52 | NE | ND | 1.8 | ND | ND | 0.414 | 0.784 | 0.6 | - | - | - | - | - | 2.28 | 1.97 |
| Benzo(a)pyrene | 5 | 2.71 | 0.7 | 5 | NE | ND | 1.6 | ND | ND | 0.52 | 0.85 | 0.677 | - | - | - | - | - | 2.71 | 2.49 |
| Benzo(b)fluoranthene | 52 | 5.23 | 1 | 52 | NE | ND | 2.2 | ND | ND | 1.07 | 1.53 | 1.25 | - | - | - | - | - | 5.23 | 4.59 |
| Benzo(k)fluoranthene | 36 | 1.6 | 12 | 520 | NE | ND | 0.89 | ND | ND | 0.358 | 0.483 | 0.348 | - | - | - | - | - | 1.6 | 1.2 |
| Chrysene | 120 | 3.05 | 120 | 5,200 | NE | ND | 2.2 | ND | ND | 0.51 | 1.04 | 0.829 | - | - | - | - | - | 3.05 | 3 |
| Dibenzo(a,h)anthracene | 5 | 0.11 | 0.7 | 5 | NE | ND | ND | ND | ND | ND | ND | ND | - | - | - | - | - | ND | ND |
| Indeno(1,2,3-cd)pyrene | 4 | 1.4 | 1 | 52 | NE | ND | 1.4 | ND | ND | 0.175± | 0.509 | 0.213± | - | - | - | - | - | ND | 0.720± |
| PAHs - noncarcinogenic | | | | | | | | | | | | | | | | | | | |
| Acenaphthene | 340 | ND | 340 | 340 | NE | ND | ND | ND | ND | ND | ND | ND | - | - | - | - | - | ND | ND |
| Acenaphthylene | 490 | 1.1 | 490 | 490 | NE | ND | 1.1 | ND | ND | 0.160± | 0.220± | ND | - | - | - | - | - | ND | ND |
| Anthracene | 2,500 | 0.68 | 1,000 | 5,000 | NE | ND | 0.68 | ND | ND | ND | 0.296 | 0.140± | - | - | - | - | - | ND | ND |
| Fluoranthene | 2,500 | 6.33 | 960 | 5,000 | NE | ND | 4.3 | ND | ND | 0.957 | 2 | 1.47 | - | - | - | - | - | 6.22 | 6.33 |
| Fluorene | 77 | ND | 77 | 77 | NE | ND | ND | ND | ND | ND | ND | ND | - | - | - | - | - | ND | ND |
| Methylnaphthalene, 2- | 96 | ND | 96 | 100 | NE | ND | ND | ND | ND | ND | ND | ND | - | - | - | - | - | ND | ND |
| Naphthalene | 5 | ND | 5 | 5 | NE | ND | ND | ND | ND | ND | ND | ND | - | - | - | - | - | ND | ND |
| Benzo (g,h,i) perylene | NE | 1.2 | NE | NE | NE | ND | 1.2 | ND | ND | 0.158± | 0.428 | 0.168± | - | - | - | - | - | 0 | 0 |
| Phenanthrene | NE | 3.2 | NE | NE | NE | ND | 3.2 | ND | ND | 0.464 | 1.11 | 0.65 | - | - | - | - | - | 2.45 | 2.51 |
| Pyrene | 720 | 4.4 | 720 | 5,000 | NE | ND | 4.1 | ND | ND | 1.02 | 1.8 | 1.05 | - | - | - | - | - | 4.17 | 4.4 |

Notes:

1. Data were provided to Sanborn, Head & Associates, Inc. (Sanborn Head) by the New Hampshire Department of Environmental Services.
2. Concentrations are provided in milligrams per kilogram (mg/kg) which are equivalent to parts per million.
3. "<" indicates the analyte was not detected above the indicated laboratory reporting limit.
4. "NE" indicates the sample was not analyzed for this parameter.
5. "NE" indicates a standard has not been established for this parameter.
6. "ND" indicates that this parameter was not detected at a concentration greater than the laboratory reporting limit.
7. The Soil Remediation Standards (SRS) were promulgated in Env-Or 600 (June 2015). The SRS are general Characterization and Management Policy" (RCMP), dated January 1998 with 2000-2013 revisions and addenda.
8. A bold value indicates the detected concentration exceeds the SRS.
9. A shaded value indicates the detected concentration exceeds the Acceptable Reuse Concentration.

SPECIAL ATTENTION

INVASIVE SPECIES

The statutory authority of NH Department of Agriculture RSA 430:55 and NH Department of Environmental Services RSA 487:16-a prohibits the spread of invasive plants listed on the NH Prohibited Species list. Construction activities should avoid impacting areas containing invasive plant species in order to avoid spreading these plants to new sites. If invasive plants cannot be avoided, then the following suggested best management practices (BMPs) should be incorporated into all projects. These BMPs have been summarized from the NHDOT manual “*Best Management Practices for Roadside Invasive Plants*.”

Earthwork:

- Minimize soil disturbance whenever possible outside the limits of excavation.
- Stabilize disturbed soils by seeding and/or using mulch, hay, rip-rap, or gravel that is free of invasive plant material.
- Materials such as fill, loam, mulch, hay, rip-rap, and gravel should not be brought into project areas from sites where invasive plants are known to occur.

Movement of equipment:

- Equipment movement should be from areas not infested by invasive plants to areas infested by invasive plants whenever possible.
- Staging areas should be free of invasive plants to avoid spreading seeds and other viable plant parts.

Removing vegetation:

- In areas where invasive plants will be impacted by construction activities, vegetation should be cut or removed prior to seed maturation (approximately August 1st).
- These invasive plants have the ability to sprout from stem and root fragments: purple loosestrife, phragmites, and Japanese knotweed. Mowing these plants should be avoided. When these plants are cut by other means, all plant material must be destroyed and extra care should be taken to avoid spreading plant fragments.
- Equipment used to cut or remove invasive plants should be cleaned at least daily, as well as prior to transport.

The NHDOT manual “*Best Management Practices for Roadside Invasive Plants*” and supporting fact sheet documents are available on line at www.nh.gov/dot/org/projectdevelopment/environment/documents.htm or through the NHDOT Records Section (603-271- 1601).

Items will be included in the contract under Sections 201 or 697 for projects that will require these control methods.

SPECIAL ATTENTION

1000-1

CHAPTER Env-A 1000 PREVENTION, ABATEMENT, AND CONTROL OF OPEN SOURCE AIR POLLUTION

Statutory Authority: RSA 125-C:4

PART Env-A 1001 OPEN BURNING

Env-A 1001.01 Purpose. The purpose of this part is to regulate emissions of particulate matter and toxic air pollutants from the burning of materials in the open where the products of combustion are discharged directly into the atmosphere rather than through a stack, chimney, or flue, in order to achieve and maintain attainment of the ambient air quality standards in accordance with sections 109 and 110 of the Clean Air Act, and to protect the public health and welfare pursuant to RSA 125-C:1.

Env-A 1001.02 Scope. This part shall apply to any natural person, firm, corporation, association, municipality or state agency that conducts open burning within the state.

Env-A 1001.03 Permissible Burning.

(a) Open burning in any part of the state shall be done only when the following conditions are satisfied:

- (1) When not prohibited by any local ordinance;
- (2) When not prohibited by an official having jurisdiction over open burning;
- (3) When no nuisance is created; and
- (4) When all materials that are burned are in conformance with this part.

(b) Throughout the state, only the following types of burning shall be permissible without authorization from the division:

- (1) Burning of untreated wood, campfire wood, brush or charcoal in a campfire, outdoor grill or outdoor fireplace for recreational purposes or for the preparation of food;
- (2) On-premises burning for the purpose of frost prevention, or agricultural, forestry, or wildlife habitat improvement;
- (3) Burning of solid fuel, liquid fuel, a motor vehicle, or a structure that has been certified to be free of asbestos in accordance with Env-C 400, provided that the following conditions shall be met:
 - a. The burning shall be conducted to provide bona fide instruction and training of firefighters in methods of fighting fires;
 - b. The burning shall be conducted under the direct control and supervision of qualified instructors; and
 - c. Written permission shall have been obtained in advance from the New Hampshire department of resources and economic

development, division of forests and lands, bureau of forest protection; or

(4) Burning of untreated wood, campfire wood or brush in bonfires in conjunction with holiday or festive celebrations.

(c) In an area which has been classified as "attainment" of the ambient air quality standards for particulates pursuant to Env-A 300, the following types of burning shall be permissible without authorization from the division:

(1) Burning of combustible domestic rubbish from a residence where the following conditions exist:

a. There is no public removal service;

b. The burning shall occur on-premises in a waste burner having a capacity of 7 cubic feet or less; and

c. The waste is generated from a residential building containing 4 or less dwelling units;

(2) Periodic on-site burning by the landowner of brush and leaves which originate on-site;

(3) Commercial burning of brush, provided that no other disposal method, such as chipping, can be utilized; or

(4) Burning of untreated wood from the construction or demolition of a building, provided that such burning shall be done in an area which shall be specified and approved by officials having jurisdiction over open burning.

Env-A 1001.04 Division Authorization for Certain Open Burning.

(a) In addition to any other required state or local permits or authorizations, written authorization shall be obtained from the division prior to conducting any of the following types of open burning:

(1) Burning of materials as described in Env-A 1001.03(c), above, in an area of the state that has been classified as "non-attainment" of the ambient air quality standards for particulates pursuant to Env-A 300;

(2) Burning by any city or town of brush or untreated wood from the construction or demolition of a building, provided the material originates within the state; or

(3) Open burning of explosive or dangerous material for which there is no other feasible method of safe disposal.

(b) The open burning in this section shall only be done in an area which is approved by the division and all officials having jurisdiction over open burning.

(c) The written authorization from the division shall include the date, time, and place where the open burning shall be permissible and any conditions and requirements which are necessary to ensure the safeness of the

burning and to properly regulate the emissions.

Env-A 1001.05 Absolute Prohibition Against Burning Tires and Tubes.

(a) No tires, tubes or any portion thereof shall be burned in the ambient air at any place in the state for any reason.

(b) Tires, tubes or any portion thereof which are received at any dump shall be separated from the waste and disposed of by a feasible means other than open burning.

Env-A 1001.06 Absolute Prohibition Against Burning in the Ambient Air at Salvaging or Reclaiming Operations.

(a) A suitable incinerator or other means of compliance approved by the division pursuant to Env-A 1201 shall be employed for all thermal salvaging or reclaiming.

(b) No salvaging or reclaiming operation shall burn anything on-site in the ambient air.

PART Env-A 1002 FUGITIVE DUST

Env-A 1002.01 Purpose. The purpose of this part is to regulate the direct emissions of particulate matter to the atmosphere from activities that involve mining, transportation, storage, use, and removal of mineral material or soil.

Env-A 1002.02 Scope.

(a) This part shall apply to any natural person, firm, corporation, association, municipality or state agency that emits fugitive dust within the state, including those engaged in any of the following:

- (1) Commercial mining activities, including the construction, maintenance or operation of a commercial mining or strip mining facility or part thereof;
- (2) Construction activities, including building, paving, sweeping, trenching, excavating, filling, or other activity associated with the building of streets, roads, highways, parking lots, shopping centers, housing developments, or other centers of business or residential development;
- (3) Maintenance activities, including sweeping, vacuuming, or other activity involved with the upkeep of streets, roads, highways, parking lots, shopping centers, housing developments, or other centers of business or residential development, buildings, bridges, utilities, sewerlines, waterlines, or similar entities;
- (4) Demolition activities, including the tearing down of buildings, bridges or other structures; and
- (5) Bulk hauling activities, including the transportation and transfer of material over public roads.

(b) This part shall not apply to the following:

- (1) Application of traction enhancement materials, including sand, and de-icing chemicals such as road salt, that have been applied to roads for public safety;
- (2) Normal usage of gravel or dirt roads;
- (3) Resurfacing activities of existing highways where the removal of surplus sand is not necessary; and
- (4) Agricultural industry activities or operations.

Env-A 1002.03 Precautions to Prevent, Abate, and Control Fugitive Dust. Precautions shall be taken and continued throughout the duration of the activity in order to prevent, abate, and control the emission of fugitive dust. Such precautions shall include wetting, covering, shielding, or vacuuming.

05/13/09

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SSD: 1/19/95, 4/6/99, 2/14/03 & 7/14/08

SPECIAL ATTENTION

HISTORIC AND ARCHAEOLOGICAL RESOURCES

In order to avoid impacts to archaeological resources, the Contractor shall obtain and submit to the Engineer a written certification from either: 1) the State Archaeologist, or 2) a qualified archaeologist as defined below prior to any offsite excavation or other work at any disposal site, haul road, storage area, staging area, or other areas located outside the right-of-way limits of the project. Such certification shall be made on one of the attached forms. One is intended for site clearance by the state archaeologist and the other for investigation by a qualified archaeologist. Any work in such areas may only commence after receipt of this certification and upon written authorization to proceed by the Engineer.

This Special Attention does not apply to natural materials obtained from pre-existing (i.e., owned and operated by the Contractor prior to bidding on the subject contract) and/or commercially available sources. Commercially available sources is meant to include licensed or permitted sources where anyone could purchase natural materials.

If the State Archaeologist determines that further field investigation is necessary the Contractor must decide whether to pursue alternative locations or to have the site(s) in question evaluated. If the latter is decided, it will be necessary for the Contractor and the Engineer to meet with the NHDOT Bureau of Environment, the Division of Historic Resources and the Federal Highway Administration to determine the appropriate course of action. Note that the latter parties meet twice a month on the first and second Thursdays of each month.

Professional Qualifications for Principal Investigators in Archaeological Investigations

All archaeologists contracting with NHDOT as principal investigators will be qualified for such work, as determined by NHDHR. **See list of qualified archaeological firms at www.nh.gov/nhdhr/consultants_archaeology.html.** According to NHDHR guidelines, principal investigators must meet the minimum standards presented in 36 CFR 61.

These regulations require a graduate degree in archaeology, anthropology, or related field; at least one year full-time professional experience or an equivalent period of training in archaeological research, administration, or management; at least four months of supervised field and analytical experience in general North American archaeology; and demonstrated capability to complete archaeological research through all its phases. These standards distinguish between the prehistorian and historical archaeologist. Each must have a specialization in his/her respective areas and at least one year of full-time professional experience at the supervisory level in the study of the Native American cultural traditions or the historic period.

NHDHR also requires the following additional qualifications. All prehistorians will have at least one year of supervisory experience in the region encompassing the glaciated Northeast. Historical archaeologist will have a least one year of supervisory experience in New England, New Jersey, New York, or Pennsylvania. Historical archaeologists specializing in submerged nautical resources will possess at least one year's experience in the study of such resources along the Atlantic seaboard. NHDOT requires that the principal investigator has successfully completed one or more projects in New Hampshire in a timely manner. Principal investigators will be knowledgeable about the federal and state cultural resources management laws and regulations including those relating to the treatment of human remains in marked and unmarked graves. As soon as research or initial investigations indicate the likely presence of Native American or historic deposits, a principal investigator with training and experience in that area shall supervise the work.

The principal investigator is responsible for each aspect of the project. The principal investigator will maintain sufficient presence in repositories, the field, and laboratory to set up the study, ensure appropriate collection and accurate documentation of data, direct needed modifications as investigations proceed, field-check accuracy of field data, establish and direct analysis, and oversee documentation and preparation of recommendations at its close. In phases II and III as the intensity of excavation increases, it is anticipated that this presence will proportionately rise. All research, field investigations, analysis, and report preparation will be completed within the schedule set in the authorization of work unless notification is given and adequate justification is provided to NHDOT.

Depending on the nature of the site, the prehistoric or historic archaeologist may require additional qualifications or additional personnel qualified in other fields that may not be specified under 36CFR61. For example, projects for NHDOT encounter situations in which personnel with expertise and/or demonstrated experience in geomorphology, botany, faunal analysis, forensic anthropology, and industrial and urban archaeology are needed. These individuals will possess graduate training in their field, two years of professional experience in the area of expertise for which they are being consulted, and the demonstrated ability to complete a research project with a report of findings. Principal investigators may also need to add architectural historians, historians, historical landscape architects, etc. to their team whose professional qualifications will follow those provided in 36 CFR 61.

CERTIFICATION BY NHDHR

For the purpose of compliance with the Special Attention, Historic and Archeological Resources, dated February 14, 2003, relative to Federal-Aid Highway Project No. _____, NHDOT Project No. _____, I certify the following:

1. That I have reviewed the maps, plats, photographs or other identifying geographical information supplied to me by the Contractor.
2. That the areas located on these maps, etc. are to be utilized by the Contractor _____ for the following purposes:
 - a. Excavation area _____.
 - b. Waste material area _____.
 - c. Storage or staging area _____.
 - d. Haul road _____.
 - e. Other (describe) _____

_____.
3. That I have reviewed the NHDHR site files relative to these locations and proposed uses.
4. On the basis of the above information, I have concluded that:
 - a. The location(s) have been previously reviewed, no resources have been identified, and there is no need for further archaeological evaluation _____.
 - b. The location(s) are such that no further archaeological evaluation is necessary _____.
 - c. The location(s) are such that further field investigation is necessary _____.

NHDHR Review and Compliance Coordinator

Date

Received:

NHDOT Contract Administrator

Date

cc: FHWA

NH Division of Historical Resources
NHDOT, Bureau of Environment

CERTIFICATION BY ARCHAEOLOGICAL CONTRACTOR

For the purpose of compliance with the Special Attention, Historic and Archeological Resources, dated February 14, 2003, relative to Federal-Aid Highway Project No. _____, NHDOT Project No. _____, I certify the following:

1. That I have examined the areas identified on the attached plans, maps, or property plats.
2. That these areas are to be utilized by the Contractor _____ for the following purposes:
 - a. Excavation area _____.
 - b. Waste material area _____.
 - c. Storage or staging area _____.
 - d. Haul road _____.
 - e. Other (describe) _____

_____.
3. That I have used the following techniques in my examination:
 - a. Literature search _____
 - b. Walkover (describe methodology) _____

 - c. Subsurface testing (if appropriate) _____

4. That in my professional opinion, there is minimal or no likelihood that there are cultural resources (either historic or pre-historic) present or that any such resources present have integrity, and that there is no need for any other evaluative measures prior to the use of the areas described above for the purposes noted.

Archaeological Contractor

Date

Review by: _____
NHDHR Review and Compliance
Coordinator

Date

Received:

NHDOT Contract Administrator

Date

cc: FHWA
NH Division of Historical Resources
NHDOT, Bureau of Environment

08/22/17

SSD: 12/3/79, 4/10/80, 11/19/82, 5/9/83, 12/7/90, 12/20/96, 07/14/04, 09/01/05, 08/06/07,
01/07/09, 04/15/09 & 11/30/09, 05/12/10, 02/17/11, 07/16/15, 11/02/15, 12/16/15, 01/20/16,
07/15/16

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August 16, 2017

SPECIAL ATTENTION

FUEL ADJUSTMENT

- (a) The shortage of all products in relation to the national and worldwide energy situation has made future costs of fuel unpredictable. For this reason, a price adjustment clause is being inserted in this contract to provide for either additional compensation to the Contractor or payment to the State, depending upon an increase or decrease in the price of fuel.
- (b) The fuel usage factors, which will be applied to the several items of the Contract shall be those set forth in Table 1.
- (c) Price adjustment will be based upon the quantity of fuel incorporated in the work as determined by the factors in Table 1.
 - When the monthly sales price determined per paragraph (f) is more than 110% of the fixed base price set forth in paragraph (e), a contract adjustment will be made under Item 1010.15 based on: [monthly sales price less 110% of the fixed base price] multiplied by [item quantity eligible for payment during month] multiplied by [fuel factor].
 - When the monthly sales price determined per paragraph (f) is less than 90% of the fixed base price set forth in paragraph (e), a contract adjustment will be made under Item 1010.15 based on: [monthly sales price less 90% of the fixed base price] multiplied by [item quantity eligible for payment during month] multiplied by [fuel factor].
- (d) The Contractor warrants that its bid prices for this Contract include no allowances for any contingency to cover increased costs for which adjustment is provided herein.
- (e) The fixed base price of fuel will be \$ 2.1040 per gallon.
 - This price is used solely to compute price adjustments. The fuel price will be the lower bulk retail price of **ultra low sulfur diesel fuel** for Boston as published by OPIS (Oil Price Information Service) in the Oil Price Daily, formerly known as the Journal of Commerce, and will include current Federal and State taxes.

- (f) The monthly sales price of fuel will be determined by the Department on the 15th calendar day of each month. When the 15th calendar day falls on a Saturday or Sunday, the price from the previous Friday will be utilized. Monthly sales prices will be set in the same manner as indicated in paragraph (e).
- (g) When an adjustment is called for as provided in paragraph (c), the monthly sales price determined in paragraph (f) will be used for work accomplished in the following month.
- (h) No price adjustment will be allowed beyond the Project completion date unless there is a Department-approved extension of time. Price adjustments will be made on quantities adjusted as a result of the final audit.
- (i) The Department will not be responsible for computing or otherwise indicating price adjustments except to the prime contractor, which must make its own arrangements with its subcontractors.
- (j) When no item for Fuel Adjustment is included in the Contract no adjustments will be made.

Pay item and unit:

1010.15 Fuel Adjustment ¹ \$

¹ Not a bid item.

Table 1 - FUEL FACTORS

| Item of Work | Item No. | Units | Fuel | |
|-------------------------------------|---|---------------------|----------|--------|
| Excavation: | | | | |
| Earth | 203.1_.4_ 203.50_.51_.52_ 203.6_.7_ 206.1_ 207.1_ 504.1_ | gal/c.y. | 0.26 | |
| Rock | 203.2_ 206.2_ 207.2_ 504.2_ | gal/c.y. | 0.34 | |
| Other | 203.3_ 206.3_ 207.3_ 583._ 585._ 586._ 587._ | gal/c.y. | 0.31 | |
| Bases: | | | | |
| Unprocessed | 209._ 304.1_.2_ | gal/c.y. | 0.46 | |
| Processed ⁴ | 304.3_ 304.4_.5_.6_ 508._ | gal/c.y. | 0.82 | |
| Bituminous Concrete | | | | |
| Pavement ² | 403._ 411._ | gal/ton | 1.90 | |
| All Other Items: | | gal/\$1,000 of work | 13.0 | |
| Excluded Items: ³ | | | | |
| 210._ | 510.61_ | 550.2_ | 565.2_ | 624._ |
| 211._ | 510.65_ | 560._ | 565.7_ | 645.7_ |
| 306.31_ | 521.2_ | 561._ | 568._ | 692._ |
| 306.32_ | 528._ | 563.1_ | 592._ | 697._ |
| 410._ | 544._ | 563.2_ | 603.0001 | 698._ |
| 510.31_ | 548._ | 563.3_ | 618._ | 8_._. |
| 510.41_ | 550.1_ | 563.7_ | 619._ | 10_. |

² Item 403.4 & 403.6 shall be calculated using the “All Other Items” category rate.

³ Also excluded are all supplementary agreements, extra work and per specification items.

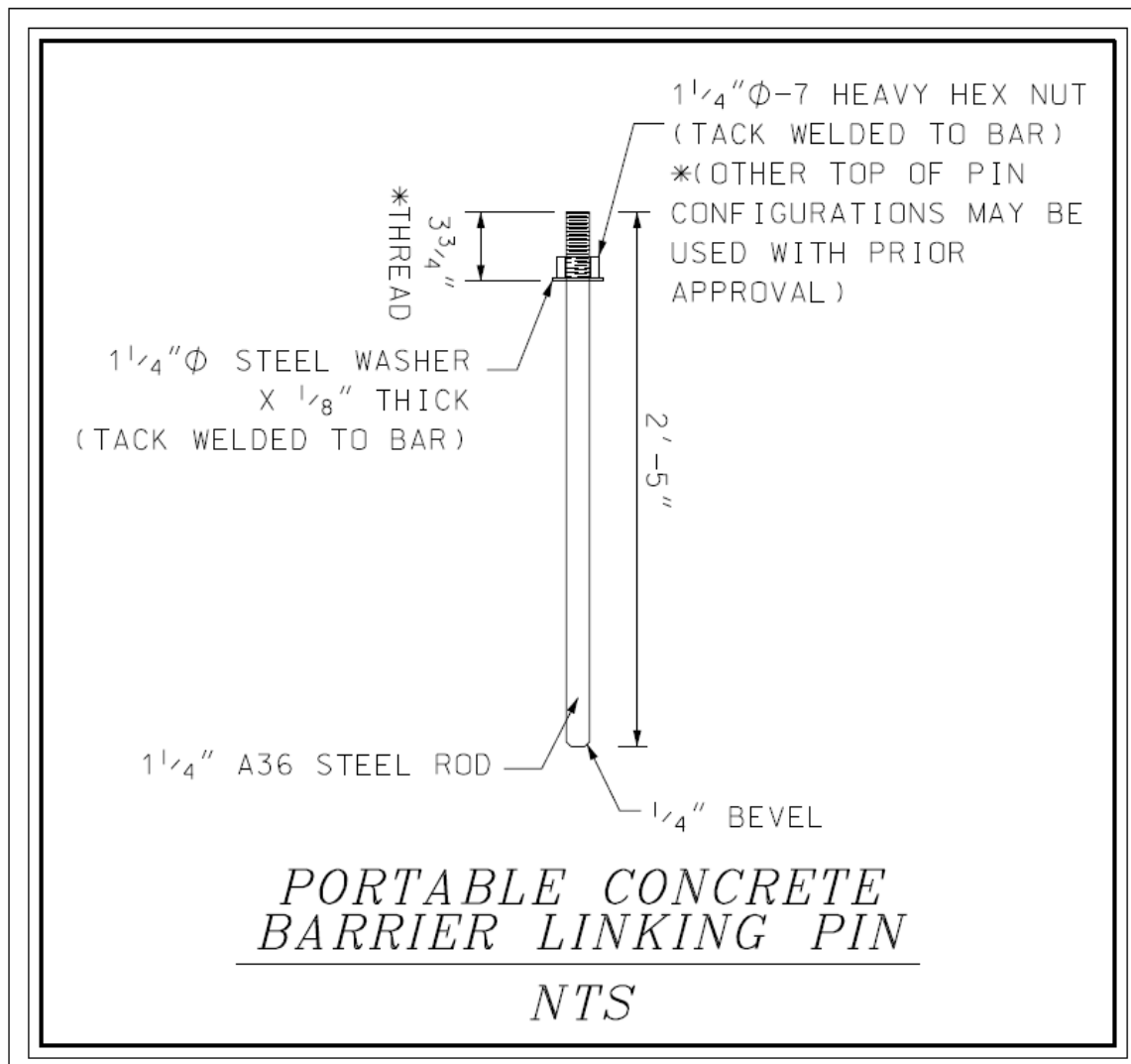
⁴ Item 304.32 shall be calculated using the “All Other Items” category rate.

NOTICE TO CONTRACTORS

Portable Concrete Barrier (PCB)

All contracts advertised after January 1, 2017 on the NHS or with a posted speed of 45 MPH or greater, which includes, but is not limited to, Item 606.417 - Portable Concrete Barrier (For Traffic Control), are not permitted to use PCB with 2-loop connections. Only PCB's that conform to the testing and evaluation criteria of the National Cooperative Highway Research Program (NCHRP) Report 350 or the Manual for Assessing Safety Hardware (MASH) shall be utilized.

All contracts advertised after May 20, 2016 are required to only use smooth 1.25" (A-36 steel) pin connections (see example below for an acceptable *Portable Concrete Barrier Linking Pin* detail). This Notice supersedes the PCB standard detail requirements. This requirement applies, but is not limited, to Item 606.417 - Portable Concrete Barrier (For Traffic Control) and Item 606.41731 - Portable Concrete Barrier for Traffic Control with Drainage Slots.



SPECIAL ATTENTION

ROADSIDE SAFETY HARDWARE WORTHINESS COMPLIANCE WITH NCHRP REPORT 350 AND MASH

The American Association of State Highway and Transportation Officials (AASHTO) has published the Manual for Assessing Safety Hardware (MASH). The main objective of MASH is to present uniform guidelines for the crash testing of both permanent and temporary highway safety hardware and evaluation criteria to assess test results. The need for updated crash criteria was based primarily on the changes to the vehicle fleet since the publication of National Cooperative Highway Research Program (NCHRP) Report 350. Highway safety hardware includes, but is not limited to, longitudinal barriers, crash cushions, attenuators, end terminals, breakaway supports, and work zone hardware/devices.

IMPORTANT: Any hardware that was designed, tested and accepted prior to January 1, 2011 under the NCHRP Report 350 criteria may continue to be used without retesting to MASH criteria. As of January 1, 2011, all new or revised highway safety hardware must be tested or retested and accepted using MASH criteria. If highway safety hardware that has been accepted by FHWA using criteria contained in NCHRP Report 350 fails testing using MASH criteria, AASHTO and FHWA will jointly review the test results and determine a course of action.

Hardware tested under MASH should be considered for use but there is no requirement to use or replace hardware that was accepted prior to January 1, 2011 under NCHRP Report 350. However, all highway safety hardware shall meet the appropriate NCHRP 350 or MASH requirements for the indicated test levels or be exempted by the FHWA from meeting this requirement. However, the Department may, in certain circumstances, require compliance to higher criteria if deemed appropriate.

WORK ZONE TRAFFIC CONTROL DEVICES:

The following is a summary of work zone traffic control devices categories, and their crash testing acceptance requirements, titled "Recommended Procedures for the Safety Performance Evaluation of Highway Features," testing and evaluation criteria as implemented by the AASHTO-FHWA Agreement (350 Agreement) dated July 1, 1998. These categories and associated requirements also apply to newly designed or revised devices that would now fall under MASH testing criteria.

Category I: Small, lightweight devices that are known to be crash-worthy from crash testing or years of demonstrable safe operational performance. These include plastic or rubber cones, tubular markers, flexible delineators, and plastic drums with no lights, batteries, signs, etc. added. For devices to be included in this category there must be virtually no potential that they will penetrate windshields, cause tire damage, or have a significant effect on the control or trajectory of an impacting vehicle. These devices will be allowed based upon developers self-certification.

Category II: Devices that are not expected to produce significant vehicular velocity change, but may be otherwise hazardous. All or parts of the devices may be substantial enough to penetrate a windshield or injure a worker or they may cause instability when driven over or become lodged under a vehicle. The total mass of a Category II device must be less than 45 kg. Examples of this category are barricades, portable sign supports, intrusion detectors and alarms and drums, vertical panels, or cones with lights.

Category III: Devices expected to cause significant velocity change or other potentially harmful reactions in impacting vehicles and Category II devices with a mass greater than 45 kg. Examples of this category are Truck-mounted attenuators (TMA), portable crash cushions and Portable concrete barrier (requires appropriate sized pin and loop or better connection).

Category IV: Crashworthy installations of Category IV devices are encouraged, though not mandated. Examples of this category are portable, usually trailer mounted devices such as area light supports, flashing arrow panels/arrows displays, temporary traffic signals and changeable message signs. However, these types of devices combined with TMA are considered Category III devices.

All category I, II, and III project work zone traffic control devices in use, except portable concrete barrier that transfers tension and moment from segment to segment, shall conform to the testing and evaluation criteria as outlined above. Devices not conforming to the criteria shall be replaced with conforming devices at no expense to the Department.

06/18/13

SSD: 09/01/05, 04/07/09, 11/30/10

SPECIAL ATTENTION**SECTION 606 – GUARDRAIL****W-BEAM RAIL**

There may be situations where standard beam guardrail, set at 30 inches high (or 31 inches high as required by the mid-splice guardrail system), will need to be connected to beam guardrail terminals that have only been crash tested at 27 inches high or bridge approach units that are designed at 27 inches high. This may reflect an existing or new installation. Similarly, new standard beam guardrail may be connected to existing beam guardrail that is not at the 30 inch height (or 31 inch height as stated above). In those circumstances transition the height over 50 feet of the standard rail that is connected to the terminal or bridge approach unit (transition shall be subsidiary to 606 Items).

Set the EAGRT heights according to the manufacturer's recommendation, as accepted under the NCHRP 350 or Manual for Accepting Safety Hardware (MASH) - 2009 criteria. All other terminals, including but not limited to, ELT, MELT, and the CRT, shall be set at the crash acceptance height of 27-inch unless otherwise accepted under crash test acceptance for a higher height.

ALL FA PROJECTS (STEEL & IRON PRODUCTS)

SPECIAL ATTENTION

BUY AMERICA

In accordance with the **BUY AMERICA** requirements of the Federal regulations, all manufacturing processes for steel and iron materials furnished for permanent incorporation into the work on this project shall occur in the United States. The only exception to this requirement is the production of pig iron and the processing, pelletizing and reduction of iron ore, which may occur in another country. Other than these exceptions, all melting, rolling, extruding, machining, bending, grinding, drilling, coating, etc. must occur in the United States.

Products of steel include, but are not limited to, such products as structural steel, piles, reinforcing steel, structural plate, steel culverts, guardrail and steel supports for signs, signals and luminaires. Products of iron include, but are not limited to, such products as cast iron frames and grates. Coatings include, but are not limited to, the applications of epoxy, galvanizing and paint. The coating material is not subject to this clause, only the application process.

A Certificate of Compliance, conforming to the requirements of Section 106.04, shall be furnished for steel and iron materials. Records to be maintained by the contractor for this certification shall include a signed mill test report and a signed certification by each supplier, distributor, fabricator, and manufacturer that has handled the steel or iron product affirming that every process, including the application of a coating, performed on the steel or iron product has been carried out in the United States of America, except as allowed by this Special Attention. The lack of these certifications will be justification for rejection of the steel or iron product.

The requirements of said law and regulations do not prevent a minimal use of foreign steel and iron materials if the cost of such materials used does not exceed one-tenth of one percent (0.1%) of the total contract price or \$2,500.00, whichever is greater.

Upon completion of the project, the Contractor shall certify in writing as to compliance with this Special Attention and also provide the total project delivered cost of all foreign steel and/or iron permanently incorporated into the project. The form for this certification is entitled "Buy America Certificate of Compliance" and can be found at www.NHDOT.com.

SPECIAL ATTENTION**SHIPPING**

In accordance with the **Title 46 - Shipping** requirements of the Federal regulations (46 CFR 381.7), contractors must comply with the Cargo Preference Act (CPA) requirements and implementation regulations for all Federal-aid projects awarded after February 15, 2016. **Title 46 - Shipping** reads as follows:

Title 46 - Shipping

Volume: 8

Date: 2014-10-01

Original Date: 2014-10-01

Title: Section 381. 7 - Federal Grant, Guaranty, Loan and Advance of Funds Agreements.

Context Title 46 - Shipping. CHAPTER II - MARITIME ADMINISTRATION, DEPARTMENT OF TRANSPORTATION. SUBCHAPTER J - MISCELLANEOUS. PART 381 - CARGO PREFERENCE-U.S.FLAG VESSELS.

§ 381.7 Federal Grant, Guaranty, Loan and Advance of Funds Agreements.

In order to insure a fair and reasonable participation by privately owned United States-flag commercial vessels in transporting cargoes which are subject to the Cargo Preference Act of 1954 and which are generated by U.S. Government Grant, Guaranty, Loan and/or Advance of Funds Programs, the head of each affected department or agency shall require appropriate clauses to be inserted in those Grant, Guaranty, Loan and/or Advance of Funds Agreements and all third party contracts executed between the borrower/grantee and other parties, where the possibility exists for ocean transportation of items procured, contracted for or otherwise obtained by or on behalf of the grantee, borrower, or any of their contractors or subcontractors. The clauses required by this part shall provide that at least 50 percent of the freight revenue and tonnage of cargo generated by the U.S. Government Grant, Guaranty, Loan or Advance of Funds be transported on privately owned United States-flag commercial vessels. These clauses shall also require that all parties provide to the Maritime Administration the necessary shipment information as set forth in § 381 .3. A copy of the appropriate clauses required by this part shall be submitted by each affected agency or department to the Secretary, Maritime Administration, for approval no later than 30 days after the effective date of this part. The following are suggested acceptable clauses with respect to the use of United States-flag vessels to be incorporated in the Grant, Guaranty, Loan and/or Advance of Funds Agreements as well as contracts and subcontracts resulting therefrom:

(a) Agreement Clauses. Use of United States-flag vessels:

- (1) Pursuant to Pub. L. 664 (43 U.S.C. 1241(b)) at least 50 percent of any equipment, materials or commodities procured, contracted for or otherwise obtained with funds granted, guaranteed, loaned, or advanced by the U.S. Government under this agreement, and which may be transported by ocean vessel shall be transported on privately owned United States-flag commercial vessels, if available.

(2) Within 20 days following the date of loading for shipments originating within the United States or within 30 working days following the date of loading for shipments originating outside the United States, a legible copy of a rated, 'on-board' commercial ocean bill-of-lading in English for each shipment of cargo described in paragraph (a)(1) of this section shall be furnished to both the Contracting Officer (through the prime contractor in the case of subcontractor bills-of-lading) and to the Division of National Cargo, Office of Market Development, Maritime Administration, Washington, DC 20590.

(b) *Contractor and Subcontractor Clauses.* Use of United States-flag vessels: The contractor agrees

(1) To utilize privately owned United States-flag commercial vessels to ship at least 50 percent of the gross tonnage (computed separately for dry bulk carriers, dry cargo liners, and tankers) involved, whenever shipping any equipment, material, or commodities pursuant to this contract, to the extent such vessels are available at fair and reasonable rates for United States-flag commercial vessels.

(2) To furnish within 20 days following the date of loading for shipments originating within the United States or within 30 working days following the date of loading for shipments originating outside the United States, a legible copy of a rated, 'on-board' commercial ocean bill-of-lading in English for each shipment of cargo described in paragraph (b) (1) of this section to both the Contracting Officer (through the prime contractor in the case of subcontractor bills--of-lading) and to the Division of National Cargo, Office of Market Development, Maritime Administration, Washington, DC 20590.

(3) To insert the substance of the provisions of this clause in all subcontracts issued pursuant to this contract.

SPECIAL ATTENTION**CONVICT PRODUCED MATERIAL**

In accordance with the requirements of the Federal regulations (23 U.S.C. 114(b)(2), 23 CFR 635.417), essentially all convict produced material is prohibited from Federal-aid highway construction projects. More specifically, materials produced after July 1, 1991, by convict labor, may only be incorporated in a Federal-aid construction projects if: 1) such materials have been produced by convicts who are on parole, supervised release, or probation from a prison; or 2) such material has been produced in a qualified prison facility, e.g., prison industry, with the amount produced during any 12-month period, for use in Federal-aid projects, not exceeding the amount produced, for such use, during the 12-month period ending July 1, 1987*.

* Because the Department, Federal Highway Administration, nor New Hampshire Correctional Industries can produce documents to meet condition 2 above, this condition cannot be met for New Hampshire convict produced material.

1/2001
Supersedes 3/90
ALL FA PROJECTS

SPECIAL ATTENTION

LOBBYING

UNITED STATES DEPARTMENT OF TRANSPORTATION FEDERAL HIGHWAY ADMINISTRATION

SUBJECT: LIMITATION ON USE OF GRANT OR CONTRACT FUNDS FOR LOBBYING

The lobbying restrictions were established by Section 319 of Public Law 101-121 (Department of the Interior and Related Agencies Appropriations Act for Fiscal Year 1990).

The law prohibits Federal funds from being expended by the recipient or any lower tier subrecipients of a Federal contract, grant, loan, or cooperative agreement to pay any person for influencing or attempting to influence a Federal agency or Congress in connection with the awarding of any Federal contract, the making of any Federal grant or loan, or the entering into of any cooperative agreement. The extension, continuation, renewal, amendment or modification of any Federal contract, grant, loan, or cooperative agreement is also covered.

Federal-aid contractors, and consultants, as well as lower tier subcontractors and subconsultants are also subject to the lobbying prohibition. To assure compliance, a certification provision is included in all Federal-aid construction solicitations and contracts, and consultant agreements exceeding \$100,000 in Federal funds.

The Contractor shall be aware that by signing and submitting this proposal, he or she is attesting to the requirements of the certification provisions.

During the period of performance of a grant or contract, recipients and subrecipients must file disclosure form (Standard Form LLL) at the end of each calendar year quarter in which there occurs any event that requires disclosure or that materially affects the accuracy of the information contained in any previously filed disclosure form.

Lower tier certifications should be maintained by the next tier above (i.e., prime contractors will keep the subcontractors' certification on file, etc.). Copies of Standard Form LLL will be included in the subcontract package for distribution to successful bidders.

December 24, 1998
Supersedes Spec. Attn. dated 3/29/88 & 12/5/90

FHWA Projects

SPECIAL ATTENTION

**CONTRACT AFFIDAVIT - CERTIFICATION REGARDING DEBARMENT
SUSPENSION**

The separate form entitled, CONTRACT AFFIDAVIT (As Required by Section 112(c) of Title 23 USC) has been deleted from this proposal.

Bidders are advised that the last page of the bidding proposal has been revised to include the same reference, **IN BOLD PRINT**, relative to the non-collusion statement included on the discontinued form.

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The Contractor is advised that 49 CFR 29.510, Appendix A, requires that the Contractor, including all principals, certify that they are not currently under debarment or suspension or have not been under debarment or suspension within the past three years. (For certification instructions see next page).

The certification has been added, **IN BOLD PRINT**, onto the next to the last page of the bidding proposal.

The Contractor is further advised that Appendix B of 49 CFR 29.510 regarding certification of lower tier transactions has been added to Form FHWA-1273.

Appendix A - Certification regarding Debarment, Suspension, and other Responsibility Matters -
Primary Covered Transactions.

Instruction for Certification

1. By signing and submitting this proposal, the prospective primary participant is providing the certification set out below.
2. The inability of a person to provide the certification required below will not necessarily result in denial of participation in this covered transaction. The prospective participant shall submit an explanation of why it cannot provide the certification set out below. The certification or explanation will be considered in connection with the department or agency's determination whether to enter into this transaction. However, failure of the prospective primary participant to furnish a certification or an explanation shall disqualify such person from participation in this transaction.
3. The certification in this clause is a material representation of fact upon which reliance was placed when the department or agency determined to enter into this transaction. If it is later determined that the prospective primary participant knowingly rendered an erroneous certification, in addition to other remedies available to the Federal Government, the department or agency may terminate this transaction for cause of default.
4. The prospective primary participant shall provide immediate written notice to the department or agency to whom this proposal is submitted if at any time the prospective primary participant learns that its certification was erroneous when submitted or has become erroneous by reason of changed circumstances.
5. The terms "covered transaction," "debarred," "suspended," "ineligible," "lower tier covered transaction," "participant," "person," "primary covered transaction," "principal," "proposal," and "voluntarily excluded," as used in this clause, have the meanings set out in the Definitions and Coverage sections of the rules implementing Executive Order 12549. You may contact the department or agency to which this proposal is being submitted for assistance in obtaining a copy of these regulations.
6. The prospective primary participant agrees by submitting this proposal that, should the proposed covered transaction be entered into, it shall not knowingly enter into any lower tier covered transaction with a person who is debarred, suspended, declared ineligible, or voluntarily excluded from participation in this covered transaction, unless authorized by the department or agency entering into this transaction.
7. The prospective primary participant further agrees by submitting this proposal that it will include the clause titled "Certification" Regarding Debarment, Suspension, Ineligibility and Voluntary Exclusion-Lower Tier Covered Transaction," provided by the department or agency entering into this covered transaction, without modification, in all lower tier covered transactions and in all solicitations for lower tier covered transactions.
8. A participant in a covered transaction may rely upon a certification of a prospective participant in a lower tier covered transaction that is not debarred, suspended, ineligible, or voluntarily excluded from the covered transaction, unless it knows that the certification is erroneous. A participant may decide the method and frequency by which it determines the eligibility of its principals. Each participant may, but is not required to, check the Nonprocurement List.
9. Nothing contained in the foregoing shall be construed to require establishment of a system of records in order to render in good faith the certification required by this clause. The knowledge and information of a participant is not required to exceed that which is normally possessed by a prudent person in the ordinary course of business dealings.
10. Except for transactions authorized under paragraph 6 of these instructions, if a participant in a covered transaction knowingly enters into a lower tier covered transaction with a person who is suspended, debarred, ineligible, or voluntarily excluded from participation in this transaction, in addition to other remedies available to the Federal Government, the department or agency may terminate this transaction for cause or default.

SPECIAL ATTENTION

SUMMARY OF REQUIREMENTS FOR FEDERAL-AID PROJECTS

1. Subletting on Federal-aid Contracts:

- a. On Federal-Aid projects, the following documents are required to be incorporated in, and made a part of, every subcontract agreement; including lower-tier subcontract agreements:
 - NHDOT Subcontracting Procedures
 - Required Contract Provisions (FHWA-1273)
 - Disadvantaged Business Enterprise (DBE) Program Requirements (Standard Specification 103.06)
 - Prompt Payment to Subcontractors (Standard Specification 109.09)
 - 41 CFR 60-4 Affirmative Action Requirements
 - Applicable only to contracts or subcontracts in excess of \$10,000
 - U.S. Department of Labor (USDOL) wage rates entitled “GENERAL WAGE DECISION” (as contained in the contract)
 - Does not apply to companies performing Davis-Bacon exempt work (such as testing, monitoring, and inspection services).
- b. Subcontractor Approvals for Companies Who Perform Testing, Monitoring, Inspection Services:
 - 1) Companies and/or independent contractors performing testing, monitoring, or inspection, such as ground penetrating radar, erosion control monitoring, video inspection, SWPPP, environmental testing/monitoring or vibration monitoring, require subcontractor approval.
 - 2) The following subcontractor approval documentation is required:
 - OFC Form 15 - Transmittal Request
 - 15a for State managed projects, or
 - 15b for Local Public Agency (LPA) municipal projects
 - OFC Form 14 - Contractor Acknowledgment Certification
 - OFC Form 26 - Work Certificate
 - Certificate of Insurance showing Workers’ Compensation coverage
Office of Federal Compliance (OFC) staff will verify coverage with the NH Department of Labor (NHDOL).
- c. Contractors will not be approved or authorized to work until all OFC’s Annual Assurance requirements have been fulfilled.
- d. Per NH RSA 228:4-b, Workers’ Compensation Insurance must cover all individuals performing work on site and shall remain in effect for the duration of the contractor’s work on the project. No excluded individual, owner, or officer may perform work on site without exception. All persons working on site must have Workers’ Compensation coverage on file with the NHDOL.

- e. Prime Contractors shall submit consent to sublet packages to the NHDOT at least 5 working days prior to said subcontractor (or lower-tier subcontractor) performing work on site. On LPA projects, the Prime Contractor shall also provide a courtesy copy to the town or the town's consultant, if applicable.
- f. LPA Projects Only: OFC is the sole approval authority for all LPA construction projects. Consents to sublet shall be submitted directly to the OFC.

2. FHWA Form 1273, Required Contract Provisions:

- a. The Prime Contractor shall insert in each subcontract all the stipulations contained in the Required Contract Provisions. Primes shall further require their inclusion in any lower-tier subcontract or purchase order that may in-turn be made. The Required Contract Provisions shall not be incorporated by reference in any case.
- b. In accordance with Section I, Paragraph 1, the Prime Contractor shall be responsible for compliance by any subcontractor, lower-tier subcontractor or service provider. This shall include any unpaid wages found to be owed that is not paid by a subcontractor or lower-tier subcontractor.
- c. In accordance with Section I, Paragraph 3, "A breach of any of the stipulations contained in these Required Contract Provisions may be sufficient grounds for withholding of progress payments, withholding of final payment, termination of the contract, suspension/debarment or any other action determined to be appropriate by the contracting agency and FHWA."

3. Certified Payrolls and Time Sheets:

- a. Submission Format: Payrolls, as required by FHWA Form 1273, shall be submitted electronically (email) as a pdf document to the NHDOT Contract Administrator, consistently named in the following format: Contractor's name (abbreviated is acceptable) followed by the "week ending" date (yyyy/mm/dd). The Contractor's and each Subcontractor's payroll shall be submitted as separate, individual files.

Example: Plow Brothers Inc 2017-12-09

- b. Multiple Counties/States or Categories (Highway/Building/Heavy): Whenever contracts have multiple wage determinations, contractors shall indicate, on each payroll submission, which wage determination is applicable to the work.
- c. Project Specific: Except for weekly gross pay, deductions, and weekly net pay, all information shown on certified payrolls shall be project specific. Please reference FHWA Form 1273 for additional payroll requirements and limitations.
- d. Time Sheets: Every contractor shall create and maintain time sheets for every worker performing work on the project. This includes salaried employees who perform work in a classification, either intermittently or full time. Time sheets shall record all work performed during the work week, both Federal and non-Federal, shop time, travel time considered work time, including any time considered "hours worked" as described under the Fair Labor Standards Act, Part 785. When requested, Contractors shall provide copies of time sheets to the OFC in support of certified payroll report information being provided. Time sheets, payroll records, and other basic records relating thereto shall be maintained by the Contractor during the course of the work and preserved for a period of three years from final invoice for all laborers and mechanics working at the site of work.

4. Sign-In Sheets:

- a. State Managed Projects: The use of daily sign-in sheets is required for subcontractors performing asbestos abatement. The OFC may also direct the use of daily sign-in sheets on other State managed projects for any contractor who does not accurately report all workers performing work on site on their payrolls. The sign-in sheets shall be administered as described below.
- b. LPA Projects: The use of daily sign-in sheets is **mandatory** on all LPA projects. Every worker must sign in, on a daily basis, prior to performing work on site. The OFC Form 20- Daily Sign-In Record shall be used for this purpose. The Prime Contractor is responsible to ensure all sign-in sheet requirements are met and that sign-in sheets are turned in to the Contract Administrator on a daily basis. Contract Administrators shall review and initial sign-in sheets daily; cross matching what employees have indicated for their work classification and what employers are indicating on certified payroll reports, and also verifying employers of workers signing in have been approved to work by the NHDOT. Sign-in sheets shall be co-located with certified payrolls and filed in a 3-ring binder; newest sign-in sheets on top. Sign-in sheets are an inspection item.

5. Requesting Work Classifications, Classifying Workers, and/or Payment of Wages.

- a. The Prime Contractor is required to submit an additional request to the NHDOT for any classification of labor/equipment that they or their subcontractors shall be utilizing under the contract that is not contained in the Proposal's Federal General Decision.
- b. Conformance submissions shall be in accordance with U.S. Department of Labor Memorandum No. 213, dated March 22, 2013. A copy of the Memorandum can be found at <http://www.wdol.gov/aam/aam213.pdf>.
- c. Unless otherwise instructed by the OFC, a SF 1444 shall be used for this purpose.
- d. Requests must be submitted to the NHDOT prior to any work being performed in the classification(s).
- e. Contractors who do not receive a USDOL conformance decision from the OFC within 45 days of submission should follow-up with the OFC.
- f. Once a decision is received from the USDOL, the OFC will notify the Prime Contractor. In cases when the USDOL stipulates a higher rate of pay than the one proposed by the Contractor, and the Contractor elects not to submit an appeal, restitution, if due, shall be paid to employees within 10 calendar days of being notified by the OFC. Restitution requirements of the NHDOT shall apply.
- g. Appeals shall be filed with the USDOL within 30 calendar days and a courtesy copy forwarded to the OFC at the same time. Restitution, if applicable, does not need to be paid during the time the appeal is under review by the USDOL.
- h. Contractors shall immediately inform the OFC whenever appeal decisions (including reconsideration requests) are received from the USDOL.

- i. In cases when a contractor indicates to the OFC he/she plans to appeal the USDOL decision but fails to provide the OFC proof of submission within 30 calendar days, the contractor shall comply with the original USDOL decision. The OFC will subsequently notify the Contractor that proof of an appeal was not received within 30 days and restitution, if applicable, must be paid to workers within 10 calendar days. Contractors who fail to provide restitution will be deemed “in non-compliance.”
- j. OFC payment release authorization letters (Okay to Pay letters) cannot be accomplished until all wage conformances have been deemed closed (USDOL responses have been received), any pending contractor wage appeals have been finalized, with restitution paid if applicable, and all Prompt Pay requirements have been met.
- k. Job Classifications Descriptions (Laboring Category): While most of skilled and unskilled crafts appearing in Wage Determinations are self-explanatory, the below classifications (not all inclusive) have been described by the NHDOT and are consistent with USDOL requirements. Questions involving correct classification of workers should be addressed prior to performing work on the project. Workers performing in these classifications, according to the description, will be classified by contractors accordingly:
 - 1) Asbestos Abatement: All work associated with asbestos abatement shall be classified as “Laborer,” unless said work involves piping that will be reinsulated. In these cases, “Asbestos Abatement Worker” shall be used.
 - 2) Blaster: Supervises and assists in locating, loading, and firing blast holes with explosives to break up hard materials. This work includes any of the following duties on-site: determining the spacing and depth of drilled holes; determining the amount of explosives, timing and placement of detonators; handling blasting materials in the work area; loading holes with detonators, primers and explosives; tamping and stemming holes; directing the placement of blasting mats or other flyrock controls; and detonating the charges.
 - 3) Brick Mason (also called Brick Layers): Builds and repairs walls, floors, paths/sidewalks, partitions, fireplaces, chimneys, and other structures with brick, pavers, precast masonry panels, concrete block, and other masonry materials, with or without mortar.
 - 4) Carpenter (Form Work Only): Formwork carpenters build the molds that retain wet concrete in the construction of bridges, foundations and other concrete structures. This also includes pre-manufactured forms made of steel, wood or heavy plastic. Work under this class also includes bracing required to hold the forms in place.
 - 5) Carpenter (Excluding Form Work): Involves all carpentry work not directly related to the pouring of concrete. This includes, without limitation, scaffolding, safety rail, platforms, walkways, stairs, demo containment, buildings, and bracing that is not in direct contact with concrete.

Note 1: Any work to dismantle where workers can simply “tear it apart” and where no safety concerns are present can be performed by Common or General Laborers.

Note 2: Questions involving these classes should be addressed prior to performing work on the project.

- 6) Drill Operator: Unless a hand-held tool, which can then be classified and performed as a Common/General Laborer, all drill work shall be performed in the “Drill Operator” classification. Conformances, if needed, shall be consistent with this requirement.
- 7) Guardrail Installer: Except for the “pounder,” each person performing guardrail installation work shall be classified as “Guardrail Installer.”
- 8) Ironworker (Reinforcing): Positions and secures steel bars to placement of reinforced concrete; determines number, size, shape, and location of reinforcing rods from plans, specifications, sketches and/or oral instructions; places and ties reinforcing steel using wire and pliers, sets rods in place, spaces and secures reinforcing rods. May bend steel rods with hand tools or operate a rod-bending machine; may reinforce concrete with wire mesh; may perform other related duties.
- 9) Ironworker (Structural): Performs any combination of the following duties to set beams, hang diaphragms, install bolts, torque bolts, test bolts, raise, place and unite girders, columns and other structural steel members to form completed structures or structure frameworks, working as a member of a crew; sets up hoisting equipment for raising and placing structural steel members; fastens steel members to cable of hoist using chain, cable or rope; signals worker operating hoisting equipment to lift and place steel members. Guides member using guy line (rope) or rides on member to guide it into position. Reads plans; rigs, assembles and erects structural members requiring riveting or welding. May perform other related duties.
- 10) Lead Abatement Worker: All work associated with lead abatement shall be classified as “Lead Abatement Worker”.
- 11) Stone Mason: Builds stone walls, as well as set stone exteriors and floors, lays/sets all cut stone, marble, slate, or stone, with or without mortar. They work with natural cut stone, such as marble, granite, limestone and artificial stone made of concrete, marble chips, or other masonry materials.
- 12) Sweeper/Broom Operators: Whenever Sweeper or Broom does not appear in the Wage Determination, contractors may use the Truck Driver classification for this service if the equipment used is of the over the road type (only). However, anytime the contract has an established classification/rate for “Sweeper or “Broom,” this classification must be used and the minimum rate, as it appears in the contract, shall apply.
- 13) Traffic Coordinator: Performs sign placement and maintenance, including proper set up and relocation of construction sign packages and message boards; designs lane closures in accordance with local, state, and Federal requirements. Please do not confuse this classification with Flagger.

6. Prompt Pay: Prompt pay requirements are outlined in the NHDOT Standard Specifications Section 109.09. Submissions are due no later than the 10th calendar day of each month.

- a. State managed projects: Contractors may use the OFC Form 18 or utilize their own document that contains the same required information unless otherwise instructed by the OFC.

- If no payments were made during the reporting period, contractors shall submit a certification indicating “no payments made to subcontractors.”
- b. LPA projects: Contractors shall use the OFC Form 12.
7. **Mandatory Training**: Prime Contractors who fail to obtain an annual average (based on the calendar year) of at least 60% “Satisfactory” ratings on all OFC Compliance Field Audit Reports may be required to attend a mandatory 4-hour Contractor Compliance Training Class each spring (as scheduled by the OFC). A principal owner or executive officer of the company, and his/her payroll accountant shall attend.
- a. Compliance ratings will be averaged over all projects if a Prime Contractor has multiple projects.
 - b. The OFC has at least two Contractor Compliance Training Seminars each year. Every contractor participating on Federal-aid construction projects is encouraged to attend.
8. **Restitution**: If required, restitution shall be performed in accordance with the OFC guidelines. The OFC Form 8 - Restitution Worksheet and Affidavit shall be used.
9. **Temporary Suspensions**:
- a. Any Contractor, Subcontractor, or Lower-tier Subcontractor found to be in violation of FHWA Form 1273, Required Contract Provisions, made part of its contract, or has failed to comply with OFC Field Audit requirements, will be required to take corrective action before participating in future projects funded by the Department. Corrective action will include, but not limited to, the submission of certified payrolls or other records and reports necessary to verify compliance with the Provisions.
 - b. Any Contractor, Subcontractor or Lower-tier Subcontractor found to have repeatedly violated the FHWA Form 1273, Required Contract Provisions, may be required to complete 4-hours of Federal Contract Compliance Training conducted by the OFC. When mandated, a principal owner and/or company executive and his/her payroll accountant shall attend. Federal Contract Compliance Training must be completed before participation on future projects is authorized. This requirement does not relieve the Contractor of its obligations under the prime contract, nor does it prevent the Department from seeking other remedies or enforcement action, as provided by the governing Rules, Laws, and Federal Regulations.
 - c. Companies will be notified of suspensions in writing. Actions the company must take to have participation privileges restored will be clearly indicated. Companies will also be advised that if a satisfactory response is not received within 30 days of receipt of the suspension notice, the company will be considered “non-responsive.” In cases where companies are non-responsive, and unpaid wages on the part of the subcontractor or lower-tier subcontractor are involved, the matter will then be deferred to the Prime Contractor for payment of wages as provided in Form FHWA 1273, Required Contract Provisions, Section I, Paragraph 3.

10. Right to Withhold Payment: The Department may withhold payments claimed by the Contractor on account of:

- a. Failure of the Contractor to make payments to Subcontractors for materials or labor.
- b. Regulatory non-compliance or enforcement.
- c. Failure to comply with OFC Field Audit Report requirements.
- d. Failure to comply with monthly reporting requirements, as applicable.
- e. For projects with an On-The-Job Training (OJT) requirement, failure to submit OJT Form 1 - On-The-Job Training Acknowledgement and Statement of Intent within 30 days of the project start date.
- f. Failure to submit closeout documentation.
- g. All other causes that the Department reasonably determines negatively affect the State's interest.

11. Final Payment Release: Once final project records are transferred to the OFC, a final review shall be performed to determine compliance with the Federal provisions. Release of any final payment shall not be made to the Contractor until the OFC issues a payment release letter (Okay to Pay) certifying:

- a. All required payrolls, labor, and Equal Employment Opportunity (EEO) documentation have been received and deemed complete and correct.
- b. DBE requirements stipulated in the Contract and/or the Required Contract Provisions have been fulfilled.

12. Deposits in Escrow: Every attempt is made to complete compliance actions and resolve any disputes before the project is completed and final payments are made. Sometimes, however, corrective actions or disputes continue after completion and provisions must be made to ensure that funds are available to pay any wage restitution that is ultimately found due. In these cases, the project can proceed to final closing provided the Prime Contractor, from payments already provided him/her, provides written evidence a deposit of an amount equal to the potential liability for wage restitution and liquidated damages, if applicable, has been deposited in an escrow account. When a final decision is rendered, the Prime Contractor makes disbursements from the account in accordance with the decision. Deposit/escrow accounts are established for one or more of the following reasons:

- a. Where the parties have agreed to amounts of wage restitution that are due but the employer has not yet furnished evidence that all the underpaid workers have received their back wages. The deposit is equal to the amount of restitution due to workers lacking payment evidence. As proper documentation is received, an amount corresponding to the documentation is returned to the depositor. Amounts for any workers who cannot be located are held in the escrow account for three (3) years. Amounts remaining in the account not disbursed by the end of this three-year period shall be returned to the Prime Contractor.
- b. Where underpayments are suspected or alleged and an investigation has not yet been completed. The deposit is equal to the amount of wage restitution and liquidated damages, if applicable, that is estimated to be due. If the final determination of wages due is less than the amount estimated and placed in the escrow account, the escrow

- will be reduced to the final amount and the difference will be returned to the depositor. If the parties agree to the investigative findings, the amounts due to workers will be disbursed from the escrow account in accordance with the schedule of wages due. Amounts for unfound workers will be retained for a period of three (3) years and subsequently disbursed to the depositor as described above in Paragraph 12a.
- c. Where the parties are waiting for the outcome of an administrative hearing that has been or will be filed contesting a final determination of wages due. The deposit shall be equal to the amount of wage restitution and liquidated damages, if applicable, that have been determined to be due. Once the final decision is rendered, disbursements from the escrow account are made in accordance with the decision.

Please direct questions relating to any information in this document to the OFC. See the OFC website for forms, documents, training schedules, contact information, and other helpful material: www.nh.gov/dot/org/administration/ofc/index.htm.

SPECIAL ATTENTION

Disadvantaged Business Enterprise (DBE)

Disadvantaged Business Enterprise (DBE) Policy. It shall be the policy of the New Hampshire Department of Transportation (NHDOT) to ensure nondiscriminatory opportunity for Disadvantaged Business Enterprises (DBE's) to participate in the performance of all contracts and subcontracts financed with Federal funds as specified by the regulations of the United States Department of Transportation (USDOT), Federal Highway Administration and as set forth below.

1. Policy. It is the policy of the United States Department of Transportation to ensure nondiscriminatory opportunity for disadvantaged business enterprises, as defined in 49 Code of Federal Regulation (CFR) Part 26, to participate in the performance of contracts and subcontracts financed in whole or in part with Federal funds. Consequently, the DBE requirements of 49 CFR Part 26 applies to this contract.

2. Disadvantaged Business Enterprise (DBE) Obligation. The State and its Contractor agree to ensure nondiscriminatory opportunity for disadvantaged business enterprises, as defined in 49 CFR Part 26, to participate in the performance of contracts and subcontracts financed in whole or in part with Federal funds. **Prime Contractors and subcontractors who further sublet must include this assurance in every subcontract:** *The Contractor, sub recipient or subcontractor shall not discriminate on the basis of race, color, national origin, or sex in the award and performance of this contract. The Contractor shall carry out applicable requirements of 49 CFR Part 26 in the award and administration of USDOT-assisted contracts. Failure by any contractor to carry out these requirements is a material breach of this contract, which may result in the termination of this Contract or such other remedy, as the NHDOT deems appropriate.*

3. Sanctions of Non-Compliance. The Contractor is hereby advised that failure of the Contractor, or any Subcontractor performing work under this Contract, to carry out the requirements set forth in paragraphs 1 and 2 above shall constitute a breach of contract and, after notification of the United States Department of Transportation, may result in termination of this Contract or such remedy as the State deems appropriate.

Overall Statewide DBE Goals. The NHDOT currently employs a race/gender neutral DBE policy to attain its overall statewide DBE goals. This means that unless otherwise stated in the Contract, the NHDOT relies on the voluntary cooperation of all contractors to utilize DBE's on every project, sufficient to meet or exceed the current statewide DBE goal. Although the majority of statewide DBE goals are currently voluntary, failure of the NHDOT to meet or exceed the overall statewide DBE goal as required by the Federal Highway Administration (FHWA), could necessitate placement of mandatory DBE participation requirements on all future statewide projects.

Disadvantaged Business Enterprise (DBE) Program Goals. The New Hampshire Department of Transportation is required to set an overall DBE goal for participation in all transportation related Federal-aid projects. The goal is determined following guidelines set forth in 49 CFR 26.45, and based on the availability of ready, willing and able DBE's who submitted bids for transportation related projects, compared as a percentage of all available contractors who submitted bids for transportation related projects during the same time period. The DBE goal may be adjusted to take into account other factors impacting DBE utilization, in an effort to narrowly tailor the overall DBE goal. The detailed goal setting methodology and current overall DBE goal may be viewed on the NHDOT website at www.nh.gov/dot.

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Disadvantaged Business Enterprise (DBE) Definition. A DBE is defined as a business that is owned and controlled by one or more socially and economically disadvantaged person(s). For the purpose of this definition:

- A. “Socially and economically disadvantaged person” means an individual who is a citizen or lawful permanent resident of the United States and who is a Woman, Black, Hispanic, Portuguese, Native American, Asian American, or a member of another group, or an individual found to be disadvantaged by an individual determination of social disadvantage as described in 49 CFR 26 appendix E, determinations of social and economic disadvantage.
- B. “Owned and controlled” means a business which is:
 - (1) A sole proprietorship legitimately owned and controlled by an individual who is a disadvantaged person.
 - (2) A partnership, joint venture or limited liability Company in which at least 51% of the beneficial ownership interests is legitimately held by a disadvantaged person(s).
 - (3) A corporation or other entity in which at least 51% of the voting interest and 51% of the beneficial ownership interests are legitimately held by a disadvantaged person(s).

The disadvantaged group owner(s) or stockholder(s) must possess control over management, interest in capital, and interest in earnings commensurate with the percentage of ownership. Disadvantaged participation in a joint venture must also be based on the sharing of real economic interest and must include proportionate control over management, capital, and earnings, as above. If the disadvantaged group ownership interests are real, substantial and continuing and not created solely to meet the requirements of this program, a firm is considered a bona fide DBE.

Certified DBE Directory. The current New Hampshire Unified Disadvantaged Business Enterprise (DBE) Directory is available online at www.nh.gov/dot. This directory contains all currently certified DBE's available for work in New Hampshire, and is updated monthly. Only firm's listed in this directory are eligible for DBE credit on NH Federal-aid projects. If you have questions about DBE certification, or do not have access to the Internet, please call the DBE Coordinator at (603) 271-6612 for assistance.

Counting DBE Participation For Project Goals. In order for payments made to DBE contractors to be counted toward DBE goals, the DBE contractors must perform a commercially useful function (CUF). The DBE must be responsible for execution of the work of the contract and must carry out its responsibilities by actually performing, managing, and supervising the work involved, consistent with standard industry practices. This means that:

- A. The DBE must also be responsible for ordering its own materials and supplies, determining quantity and quality, negotiating price, installing (where applicable) and paying for the material itself;
- B. The DBE must perform work commensurate with the amount of its contract;
- C. The DBE's contribution cannot be that of an extra participant or a conduit through which funds are passed in order to obtain the appearance of DBE participation;
- D. The DBE must exercise responsibility for at least fifty percent of the total cost of its contract with its own work force;
- E. None of the DBE's work can be subcontracted back to the Prime Contractor, nor can the DBE employ the prime's, or other subcontractor's supervisors currently working on the project;

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- F. The DBE's labor force must be separate and apart from that of the Prime Contractor or other subcontractors on the project. Transferring crews between primes, subcontractors, and DBE contractors is not acceptable;
- G. The DBE owner must hold a Public Works license and any other professional or craft licenses required for the type of work he/she performs on the project;
- H. The DBE may rent or lease, at competitive rates, equipment needed on the project from customary leasing sources or from other subcontractors on the project.

Allowable credit for payments made to DBEs for work performed. A contractor may take credit for payments made to a certified DBE that satisfies (CUF) requirements at the following rate.

- A. A DBE Prime Contractor; count 100% of the value of work performed by own forces, equipment and materials count towards DBE goals.
- B. An approved DBE subcontractor; count 100% of the value of work performed by the DBE's own forces, equipment and materials, excluding the following:
 - The cost of materials/supplies purchased from a non-DBE Prime Contractor.
 - The value of work provided by non-DBE lower tier subcontractors, including non-DBE trucking to deliver asphalt to a DBE contractor.
- C. A DBE owner-operator of construction equipment; count 100% of expenditures committed.
- D. A DBE manufacturer; count 100% of expenditures committed. The manufacturer must be a firm that operates or maintains a factory or establishment that produces on the premises the materials or supplies obtained by the Prime Contractor.
- E. A regular DBE dealer/supplier; count 60% of expenditures committed.
A regular dealer/supplier is defined as a firm that owns, operates, or maintains a store, warehouse or other establishment, in which the materials or supplies required for the performance of the contract are bought, kept in stock, and regularly sold or leased to the public in the usual course of business. A person may be a dealer in such bulk items as petroleum products, steel, cement, gravel, stone or asphalt without owning, operating or maintaining a place of business, if the person both owns and operates distribution equipment for the products, by the means of a long term agreement, and not by a contract by contract basis.
- F. A DBE Broker; count for DBE credit only the fees or commissions charged for assistance in the procurement, and, fees and transportation charges for the delivery of materials or supplies required at the job site, but not the cost of materials procured. A broker is defined as any person(s) or firm who arranges or expedites transactions for materials or supplies, and does not take physical possession of the materials or supplies at their place of business for resale.
- G. A DBE renter of construction equipment to a contractor; count 20% of expenditures committed, with or without operator.
- H. A bona fide DBE service provider; count 100% of reasonable fees or commissions.
Eligible services include professional, technical, consultant, or managerial, services and assistance in the procurement of essential personnel, facilities, equipment, materials or supplies required for the performance of the contract. Eligible services also include agencies providing bonding and insurance specifically required for the performance of the contract.
- I. A trucking, hauling or delivery operation, count 100% of payments when trucks are owned, operated, licensed and insured by the DBE and used on the contract and, if applicable, includes the cost of the materials and supplies. 100% of payments when the DBE leases trucks from another DBE firm including an owner-operator. 100% of reasonable fees, or commissions, the DBE receives as a result of a lease arrangement for trucks from a non-DBE, including an owner-operator.
- J. Any combination of the above.

7/29/2013

Page 4 of 4

Reporting Requirements for Payments Made To DBE's: On all Federal-aid projects, the Prime Contractor is required to report payments made to DBE's during the life of the contract, on a quarterly basis, for the periods covering January 1st–March 31st, April 1st-June 30th, July 1st-September 30th and October 1st-December 31st. The NHDOT will provide the Prime Contractor with a quarterly DBE payments report, detailing all DBE's subcontracted by the Prime Contractor, per project. The Prime Contractor shall report any payments made to DBE's during the requested reporting period. This documentation shall be submitted to the Office of Federal Compliance within the time period stated on the NHDOT quarterly request. Failure of the Prime Contractor to submit this information may result in the Department withholding progress payments.

Removal of Approved DBE From Transportation Related Project: Contractors may not terminate for convenience, any approved DBE subcontractor and perform the work with their own forces, without prior written consent from the NHDOT.

MUNICIPAL PROJECTS ONLY: Timely submission of invoices to Municipalities: Prime Contractors must submit all invoices received for satisfactorily completed work, from any subcontractor/lower-tier subcontractor/material supplier, to Municipalities for payment within 30 days of receipt.

04/27/17

SSD: 1/7/00, 3/22/00, 6/14/00, 2/8/01, 4/2/01, 1/25/02, 4/1/02, 04/15/03, 04/20/04, 05/06/05, 05/19/06, 09/17/07, 06/12/08, 03/04/09, 08/26/09, 06/28/10, 06/10/11, 04/12/12, 04/18/13, 01/02/14, 10/22/14, 01/16/15, 01/15/16, 09/12/16, 02/09/17

SPECIAL ATTENTION

QUALIFIED PRODUCTS LIST

The Qualified Products List is available online at www.nhdot.com on the *Doing Business with DOT>Contractors* webpage. A link to the Qualified Product List (QPL) is shown under the *Products and Materials* heading in the *Engineering/Technical Information* section of this webpage. The QPL is now considered a live document and periodic updates will occur. The QPL in effect on the date of project advertisement shall apply to this contract.

Products added to the QPL can be used under this contract upon issuance of the updated QPL. The Contractor shall not use the anticipated addition of a product to the QPL as a basis for use of a product. A product removed from an updated QPL can still be used under this contract unless specifically directed by the Department that the removed product shall not be used.

SPECIAL ATTENTION**STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION,
STANDARD PLANS FOR ROAD CONSTRUCTION & BRIDGE DETAIL SHEETS**

This project will be constructed under the requirements of the 2016 Standard Specifications for Road and Bridge Construction, which has been adopted and will be utilized for projects advertising after March 1, 2016, and the 2010 Standard Plans for Road Construction, including revised Standard Plans.

For Bridge Standard Plans, Bridge Design will include the appropriate standard plans, now referred to as Detail Sheets, in the plan set that pertain to the specific project, as necessary.

The Standard Specifications for Road and Bridge Construction and the Standard Plans for Road Construction manuals are available for purchase from NHDOT Records Section (603-271-3514) or can be viewed on the NHDOT website: <http://www.nh.gov/dot/business/contractors.htm>. The Specification Book and the Standard Plans are located under the *Standards and Specifications* heading while the Bridge Detail Sheets are located under the *Plans and Details* heading.

SPECIAL ATTENTION

**THIS PROJECT IS TO BE BID AND CONSTRUCTED UNDER THE
2010 STANDARD PLANS FOR ROAD CONSTRUCTION**

NOTICE OF STANDARD PLANS

The following table is a list of all of the Standard Plans that have been adopted as additions or revisions to the *Standard Plans for Road Construction*, June 2010 Edition as of the date of this Proposal. The Bidder is responsible to examine each standard to determine its effect, if any, upon the Contract.

Note: All Standard Plans are available on-line:

www.nh.gov/dot/org/projectdevelopment/highwaydesign/standardplans/index.htm.

Note: See also Standard Plans for Road Construction List of Revisions on-line:
www.nh.gov/dot/org/projectdevelopment/highwaydesign/standardplans/documents/errata_2010_standards.pdf.

2010 Highway Standard Plans

| Standard Plan | Description | Previous Revision Date | Current Revision Date |
|----------------------|--|-------------------------------|------------------------------|
| CR-1 | Granite Curb Details | | 06/16/10 |
| CR-2 | Curb Details | | 06/16/10 |
| DL-1 | Roadside Delineation | 06/16/10 | 03/05/15 |
| DL-2 | Interchange Delineation | 06/16/10 | 03/05/15 |
| DL-3 | Milled Rumble Strips (Shoulders) | 04/03/14 | 1/25/16 |
| DL-4 | Milled Rumble Strips (Shoulders) | 04/03/14 | 1/25/16 |
| DL-5 | Milled Rumble Strips (Shoulders) | 04/03/14 | 1/25/16 |
| DL-6 | Milled Rumble Strips (Centerline) | 06/16/10 | 1/25/16 |
| DL-7 | Milled Rumble Strips (Centerline) | 06/16/10 | 1/25/16 |
| DL-8 | Milled Rumble Strips (Centerline) | 06/16/10 | 1/25/16 |
| DP-1 | Drainage Pipe Details | | 06/16/10 |
| DR-1 | Grate and Frame Details | 06/16/10 | 8/14/15 |
| DR-2 | Grate and Frame, M.H.Cover and Pavement Depression Details | 11/5/10 | 8/14/15 |
| DR-3 | Precast Concrete Median Barrier Drainage Details | | 06/16/10 |

| | | | |
|-------|---|----------|---|
| DR-4 | DI-DB, Underdrain Flushing Basin and Polyethylene Liner Details | 06/16/10 | 8/14/15 |
| DR-5 | Precast Reinforced Concrete C.B., D.I. and M.H. | | 06/16/10 |
| ES-1 | End Sections for Corrugated Steel and Reinforced Concrete Pipes | | 06/16/10 |
| EW-1 | Earthwork - Muck Excavation | | 06/16/10 |
| FN-1 | Woven Wire Fence | | 06/16/10 |
| FN-2 | Chain Link Fence | | 06/16/10 |
| GR-1 | 31" Mid-Splice Beam Guardrail Standard Section - Steel Posts and Hardware Details | 06/16/10 | 8/19/15 |
| GR-2 | Beam Guardrail Standard Section - Steel Posts and Hardware Details | 05/03/11 | 8/19/15 |
| GR-2A | Beam Guardrail Standard Section - Wood Posts and Hardware Details | 06/16/10 | 8/19/15 |
| GR-3 | Preferred Platform for Energy Absorbing Guardrail Terminal (EAGRT) | | Superseded (08/19/15) - See Detail Sheets |
| GR-4 | Alternative Platform for Energy Absorbing Guardrail Terminal (EAGRT) | | Superseded (08/19/15) - See Detail Sheets |
| GR-5 | Beam Guardrail Terminal Section Type E-2 | | 06/16/10 |
| GR-6 | Beam Guardrail - Terminal Section Type E-2 Hardware Details | | 06/16/10 |
| GR-7 | Beam Guardrail - Terminal Section Type E-2 Modified 30 | | 06/16/10 |
| GR-8 | Beam Guardrail - Terminal Section Type E-2 Modified 40 | | 06/16/10 |
| GR-9 | Beam Guardrail - Terminal Section Type E-2 Modified 45 | | 06/16/10 |
| GR-10 | Beam Guardrail - Terminal Unit Type G-2 | | 06/16/10 |
| GR-11 | Beam Guardrail - Thrie Beam Double Faced (Wood Posts) | 06/16/10 | 11/05/10 |
| GR-12 | Beam Guardrail - Thrie Beam Double Faced (Steel Posts) | 11/05/10 | 05/03/11 |
| GR-13 | Beam Guardrail - Thrie Beam Single Faced (Wood Posts) | 06/16/10 | 11/05/10 |
| GR-14 | Beam Guardrail - Thrie Beam Single Faced (Steel Posts) | 11/5/10 | 05/03/11 |
| GR-15 | Precast Concrete Barrier 42" F-Shape (Double-Faced) | 06/16/10 | 11/05/10 |
| GR-16 | Transition F-Shape Barrier | 06/16/10 | 11/05/10 |
| GR-17 | Transition F-Shape Barrier and Guardrail (Wood Posts) | 11/05/10 | 10/30/12 |
| GR-18 | Transition F-Shape Barrier and Guardrail (Steel Posts) | 11/05/10 | 10/30/12 |
| GR-19 | Single Slope Barrier | 11/05/10 | 04/03/14 |
| GR-20 | Transition Single Slope Concrete Barrier, Precast | 10/30/12 | 04/03/14 |
| GR-21 | Transition Single Slope Concrete Barrier and Guardrail (Wood Posts) | 11/05/10 | 10/30/12 |

| | | | |
|-------|--|----------|-----------------|
| GR-22 | Transition Single Slope Concrete Barrier and Guardrail (Steel Posts) | 11/05/10 | 10/30/12 |
| GR-23 | Portable Concrete Barrier 10 foot | 06/16/10 | 10/03/13 |
| HR-1 | Handrail Details | | 06/16/10 |
| HR-2 | Concrete Bound and Steps | | 06/16/10 |
| HW-1 | Headwall Details | | 06/16/10 |
| HW-2 | Headwall Details (45° Wings) | | 06/16/10 |
| HW-3 | Headwall Details (2 Pipes 45° Wings) | | 06/16/10 |
| MB-1 | Mailbox Details | 06/16/10 | 02/25/16 |
| PL-1 | Planting Details | | 06/16/10 |
| PL-2 | Planting Details | | 06/16/10 |
| SL-1 | Pull Boxes and Conduit Trench Detail | | 06/16/10 |
| SL-2 | Concrete Foundations and Light Pole Base, Type B | | 06/16/10 |

2010 Traffic Standard Plans

| Standard No. | Description | Previous Revision Date | Current Revision Date |
|---------------------|---|-------------------------------|------------------------------|
| PM-1 | Layout Details | | 02/26/10 |
| PM-2 | Tolerances for Pavement Marking Lines | | 02/26/10 |
| PM-3 | Divided Roadway Multiple Lanes with Entrance and Exit Ramps Striping Layout | 02/26/10 | 11/05/10 |
| PM-4 | Divided Roadway Multiple Lanes with Entrance and Exit Ramps Striping Layout | 02/26/10 | 11/05/10 |
| PM-5 | Divided Roadway Multiple Lanes with Entrance and Exit Ramps Striping Layout | | 02/26/10 |
| PM-6 | Painted Island Details | | 02/26/10 |
| PM-7 | Intersection Details | 02/26/10 | 11/05/10 |
| PM-8 | Word and Symbol Lane Layout | | 02/26/10 |
| PM-9 | Pavement Marking at Minor Intersections | | 02/26/10 |
| PM-10 | Turning Lane Extension Details | | 02/26/10 |
| PM-11 | Accessible Parking Details | | 02/26/10 |
| PM-12 | Words and Symbols | | 02/26/10 |
| PM-13 | Words and Symbols | | 02/26/10 |
| PM-14 | Speed Zone Pavement Markings (Divided Highway) | | 02/26/10 |
| PS-1 | Aluminum Plank Details | | 02/26/10 |
| PS-2 | Aluminum Plank Details | | 02/26/10 |
| PS-3 | Aluminum Sheet Details | | 02/26/10 |

| | | | |
|-------|---|----------|--|
| PS-4 | Tubular/ U-Channel Post Detail | 02/26/10 | |
| PS-5 | Steel Beam Details (Non-Breakaway) | 02/26/10 | |
| PS-6 | Steel Beam Details (Non-Breakaway) | 02/26/10 | |
| PS-7 | Steel Beam Details (Breakaway) | 02/26/10 | |
| PS-8 | Steel Beam Details (Breakaway) | 02/26/10 | |
| PS-9 | Breakaway Mounts | 02/26/10 | |
| PS-10 | Breakaway Mounts | 02/26/10 | |
| SG-1 | Route Marker Details | 02/26/10 | |
| SG-2 | Regulatory Signs | 02/26/10 | |
| SG-3 | Regulatory Signs | 02/26/10 | |
| SG-4 | Regulatory Signs | 02/26/10 | |
| SG-5 | Regulatory Signs | 02/26/10 | |
| SG-6 | Regulatory Signs | 02/26/10 | |
| SG-7 | Warning Signs | 02/26/10 | |
| SG-8 | Warning Signs | 02/26/10 | |
| SG-9 | Warning Signs | 02/26/10 | |
| SG-10 | Warning Signs | 02/26/10 | |
| SG-11 | Warning Signs | 02/26/10 | |
| SG-12 | Miscellaneous Signs | 02/26/10 | |
| SG-13 | Informational Signs | 02/26/10 | |
| SG-14 | Informational Signs | 02/26/10 | |
| TS-1 | Traffic Signal Mast Arm Foundation - Type 1A | 02/26/10 | Superseded (03/30/16) See Detail Sheets |
| TS-2 | Traffic Signal Mast Arm Foundation - Type 1B and 1C | 02/26/10 | Superseded (03/30/16) See Detail Sheets |
| TS-3 | Traffic Signal Mast Arm Foundation - Type 2 | 02/26/10 | Superseded (03/30/16) See Detail Sheets |
| TS-4 | Quadrupole Loop Detector 2-4-2 Turns | 02/26/10 | |
| TS-5 | Rectangular Loop Detector 3 Turns | 02/26/10 | |

Work Zone Traffic Control Standard Plans

| Standard No. | Description | Previous Revision Date | Current Revision Date |
|---------------------|--|-------------------------------|------------------------------|
| TC-1 | Text Amendment Note Sheet | 08/03/04 | 03/16/17 |
| TC-2 | Permanent Construction Signing | 08/03/04 | 03/16/17 |
| TC-3 | Two-Way Traffic Lane Shift | 08/03/04 | 03/16/17 |
| TC-4 | Bridge Rehabilitation: Stop/Yield Control | 08/03/04 | 03/16/17 |
| TC-5 | Single Lane Shift (Divided Highway) | 08/03/04 | See Detail Sheets |
| TC-6 | Lane Closure with Lane Shift for Speed Reduction (Divided Highway) | 08/03/04 | 03/16/17 |
| TC-7 | Multi-Lane Closure (Divided Highway) | 08/03/04 | 03/16/17 |
| TC-8 | Construction Signing for Cold-Planed Surfaces | 08/03/04 | 03/16/17 |

06/09/17

SSD: 03/01/16, 06/10/16, 6/11/16, 06/27/16, 08/03/16, 10/31/16, 11/28/16

Page 1 of 3

SPECIAL ATTENTION**ERRATA SHEET**

The following table is a list of corrections to the 2016 *Standard Specifications for Road and Bridge Construction*, as of the date of this Proposal.

| Section | Description | Correction | Date |
|----------------------------|------------------------|--|----------|
| <i>DIVISION 100</i> | | | |
| 104.03 | Maintenance of Traffic | Amend 'winter work suspensions' in 104.03 to read 'Winter Suspension'. | 06/07/07 |
| <i>DIVISION 200</i> | | | |
| <i>DIVISION 300</i> | | | |
| <i>DIVISION 400</i> | | | |
| <i>DIVISION 500</i> | | | |
| | | Insert the following footnotes under Table 520-1A: | |
| | | ¹ See 3.1.6 TESTING | |
| | | ² For mixes containing fly-ash, silica fume, slag, or any other pozzolanic or cementitious material, the water/cement ratio of the concrete mix shall be based on the water cementitious (cement + pozzolanic or cementitious material) ratio of the mix. This water to cementitious ratio shall not exceed those listed in Table 1A. The maximum water/cement ratios listed for Concrete Class B and T are for design purposes only. | |
| | | ³ Deck Overlays. | |
| 520 | Classes of Concrete | ⁴ <u>Maximum</u> 84 day Compressive Strength for Flowable Fill, Excavatable shall not exceed 200 psi. | 06/11/16 |
| | | ⁵ These are recommended values that may be used as a starting point for a mix design that has shown ability to meet the requirements. The amount of cement shall be adjusted and fly-ash or ground granulated blast furnace slag shall be used provided the mix design meets the minimum and does not exceed the maximum compressive strength in accordance with 2.11.1. | |
| | | ⁶ Target values shown are for mix design approval only and are not intended for use as quality control or quality assurance requirements. | |

| Section | Description | Correction | Date |
|----------------------------|--|---|----------|
| 520 | Classes of Concrete – Performance Requirements (QC/QA) | Amend the title of <i>Table 420-1B - Class of Concrete – Performance Requirements (QC/QA)</i> to <i>Table 520-1B - Class of Concrete – Performance Requirements (QC/QA)</i> | 11/28/16 |
| 528 | Shear Key Grout for Butted Beams | Amend 528.2.9.1 to read: <i>Grout for shear keys shall be an approved grout as listed in Section 528A of the Qualified Products List.</i> Amend 528.2.9.2 to read: <i>For testing, 3 neat 2” cubes shall be molded and cured in accordance with AASHTO T 106 (ASTM C 109). The average compressive strength of the 3 cubes at 7 days shall be a minimum of 6000 psi.</i> | 06/10/16 |
| 528 | Installation of Deck Panels | Replace last sentence of 528.3.22.6.4 to read: <i>If leveling screws are used, they shall be completely removed and the holes filled with grout listed in Section 528A of the Qualified Products List prior to placement of deck concrete.</i> | 06/10/16 |
| 550 | PTFE Surfaces for Bearings | Amend the first sentence of 550.2.10 to read: <i>PTFE for use in expansion bearing assemblies shall be 100 percent virgin (unfilled) polytetrafluoroethylene polymer...</i> | 08/03/16 |
| 550 | Anchor Rods | Amend 550.3.15.4.1 to read: <i>Anchor rods shall be set in one of the following materials:</i> <i>(a) Non-shrinking, non-ferrous, cement-base grout listed in Section 550A of the Qualified Products List. This grout shall be used only when both the temperature of the masonry and the ambient temperature are kept at 40 °F or above until the grout has cured.</i> <i>(b) Sulfur.</i> Amend the first sentence of 550.3.15.4.2 to read: <i>Non-shrinking, non-ferrous, cement base grout shall be a product as included in Section 550A of the Qualified Products List.</i> | 06/10/16 |
| 563 | Bridge Rail | Amend 4.1 to read: <i>Bridge rail, of the type specified, will be measured by the linear foot to the nearest tenth of a foot.</i> | 06/27/16 |
| <i>DIVISION 600</i> | | | |
| 606 | Handrail | Amend 606.2.8.2 to read: <i>Grout for anchoring the pipe posts shall be High Strength, Impact Resistant, Non-shrink Grout as included in Section 528A of the Qualified Products List.</i> | 06/10/16 |

| Section | Description | Correction | Date |
|----------------------------|------------------------------|---|----------|
| 606 | Temporary Impact Attenuators | Amend in 606.2.10.2 the reference to 2.12.4 to 2.10.4. | 11/28/16 |
| 609 | Curbing | Amend the 2 nd sentence of 609.2.5 to read: <i>The non-shrink, non-metallic grout shall be a product as included in Section 550A of the Qualified Products List..</i> | 06/10/16 |
| 609 | Curb anchors | Amend 609.3.1.5.1 to read: <i>Curb anchors shall be set and grouted using non-shrink, non-metallic grout as shown on the plans.</i> | 06/10/16 |
| 621 | Delineators | Add the following to the end of 621.3.1.3: <i>Grout shall be as listed in Section 550A of the Qualified Products List or as directed by the Engineer.</i> | 06/10/16 |
| <i>DIVISION 700</i> | | | |
| 707 | Cement Mortar | Amend 2.3 to read: <i>Testing for impurities shall comply with AASHTO T 21. Results that are darker than the standard shall be cause for rejection, except as provided in 2.3.1.</i> Amend 2.3.1 to read: <i>Sand for mortar not conforming to 2.3 shall be tested in accordance with AASHTO T 71 and shall meet the requirements of 5.2.3 of AASHTO M 45.</i> | 10/31/16 |

06/09/17

SSD: 04/14/16, 05/11/16, 06/02/16, 09/15/16, 01/04/17, 02/01/17, 04/06/17

Page 1 of 2

SPECIAL ATTENTION**THIS PROJECT IS TO BE BID AND CONSTRUCTED UNDER THE
2016 STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION****NOTICE OF SUPPLEMENTAL SPECIFICATIONS**

The following table is a list of all of the Supplemental Specifications that have been adopted as additions or revisions to the *Standard Specifications for Road and Bridge Construction*, **March 2016** Edition as of the date of this Proposal. The Bidder is responsible to examine each item to determine its effect, if any, upon the Contract.

Note: Due to the limited scope of some projects, not all Supplemental Specifications will be included in all Proposals. All Supplemental Specifications are available on-line: www.nh.gov/dot/org/projectdevelopment/highwaydesign/specifications/.

| Section | Description | Revision | Previous Revision Date | Current Revision Date |
|----------------------------|---|--|------------------------|-----------------------|
| <i>DIVISION 100</i> | | | | |
| 101.79 | Qualified Products List | Revises Frequency of Updates | | 06/06/17 |
| 106.04 | Qualified Products List | Revises Frequency of Updates | | 06/06/17 |
| 109.04 | Differing Site Conditions, Changes and Extra Work | Regional Adjustment Factor | 09/01/10 | 01/06/12 |
| <i>DIVISION 200</i> | | | | |
| 211.3.4 | Vibration Monitoring | Adds reference to pre- and post-construction survey requirements | | 04/05/17 |
| <i>DIVISION 300</i> | | | | |
| <i>DIVISION 400</i> | | | | |
| 401 | Plant Mix Pavements - General | 2.5.1 - Adds winter binder to the design control points (04/05/17) 2.10 – No greater than 1% TRB (06/06/17) 3.10.10.1 – Removes penalty for failing tack (06/06/17) 3.12 – Allows a reduction in use of pneumatic-tired rollers (06/06/17) 3.17.3.1.1 – Revises HMA gradation specification limits, completes addition of winter binder, removes allowance for Aim change after two sub-lots (06/06/17) 4.1.1 – Removes reference to Night Items (06/06/17) | 04/05/17 | 06/06/17 |

| | | | | |
|----------------------------|------------------------------|--|----------|----------|
| 403.1.3 | Night Item Removal | Removes all references to Night Items in Section 403 | | 06/06/17 |
| 410 | Bituminous Surface Treatment | 2.1- Adopts new AASHTO Specifications for Emulsions (04/13/16) 3.4.1.1 – Revises pavement conditions, application rate for tack (01/04/17) 2.1.1, 2.1.2, 3.2, 3.3, 3.4 – Identifies tack sampling and penalties for non-conformance (06/06/17) | 01/04/17 | 06/06/17 |
| 411.3.5.5 | Pneumatic Tired Roller | 3.5.5 – Requires the use of pneumatic tired rollers on all Section 411 paving (06/06/17). | | 06/06/17 |
| <i>DIVISION 500</i> | | | | |
| 538 | Barrier Membrane | 3.3.5 – Updates the laydown temperature range. | | 09/15/16 |
| 563 | Bridge Fence | 2.8 – Allows aluminum ties for attaching bridge fence | | 09/15/16 |
| <i>DIVISION 600</i> | | | | |
| 603 | Plastic Pipe | 2.3, 2.6 & 2.7 – Updated to include Polypropylene Pipe as well as associated UV Requirements (04/13/16) 2.13 – Adds Contractor's Option (06/02/16) | 04/13/16 | 06/02/16 |
| 605 | Plastic Pipe | 2.1 & 2.2 – Updated to include Polypropylene Pipe | | 04/13/16 |
| 645 | Matting | 1.1 – Matting Section Revised and Pay Items Revised (01/04/17) 1.1 – 'Stabilization' changed to 'matting' (02/01/17) | 01/04/17 | 02/01/17 |
| <i>DIVISION 700</i> | | | | |
| 702 | Bituminous Materials | Amends Table 702-1 & 702-2 (04/13/16) Amends Tables, and Adds test method (05/11/16) | 04/13/16 | 05/11/16 |

August 29, 2017

SPECIAL PROVISION**AMENDMENT TO SECTION 101 – DEFINITIONS AND TERMS**

This special provision adds the definition of Limited Reuse Soil and revises the definition of topsoil.

Insert 101.64“A” as follows:

101.64“A” Limited Reuse Soils (LRS). Material within the project that requires a Soils Management Plan* to address soil that is likely and/or demonstrated to contain concentrations of contaminants due to the presence and breakdown of asphalt pavement, the normal operation of motor vehicles, and other “non-point sources” of pollution. The definition of LRS includes:

- All topsoil within the project limits and within the existing right-of-way, regardless of depth.
 - In instances where topsoil is not present, LRS is defined as soil from the top of ground to a depth of six (6) inches.
- Asphalt pavement that has been ground or pulverized (including milled material and reclaimed stabilized base).
- Street waste (catch basin cleanouts, street sweeping, and ditching material).

* For projects where LRS is deemed *de minimis*, soil management will be addressed in the Prosecution of Work and not through a Soils Management Plan.

Revise 101.108 as follows:

101.108 Topsoil. The surface layer of soil consisting of mineral soil mixed with organic matter and vegetative debris that is suitable for plant growth and is typically darker in color than the underlying soil.

S U P P L E M E N T A L S P E C I F I C A T I O N

AMENDMENT TO SECTION 101 – DEFINITIONS

*The purpose of this Supplemental Specification
is to revise frequency of QPL updates.*

Amend 101.79 to read:

101.79 Qualified Products List (QPL). A list of products prequalified by the Engineer as meeting the Contract requirements for specified materials to be incorporated into the Work. The list is maintained and updated by the Bureau of Materials and Research.

August 29, 2017

SPECIAL PROVISION**AMENDMENT TO SECTION 104 -- SCOPE OF THE WORK****AMENDMENT TO 104.04 – RIGHTS IN AND USE OF
MATERIALS FOUND ON THE PROJECT**

*This special provision requires Limited Reuse Soil from
within the project limits to be reused on site.*

Amend the first paragraph of 104.04 as follows:

Materials found in the limits of excavation that are suitable for completing bid items of work may be used by the Contractor. The Contractor will be paid both for the removal of the materials at the corresponding Contract unit price and for the pay item for which the removed materials are used. Material defined as LRS found in the limits of excavation must be reused on the Project unless otherwise stated in the Soils Management Plan or as authorized in writing by the Engineer.

Amend the third paragraph of 104.04 as follows:

Material shall not be excavated or removed from within the highway Right-of-Way that is not within the grading limits without written authorization from the Engineer. Material authorized to be removed outside the grading limits may be subject to compensation from the Contractor at an agreed price at the time of authorization. The Contractor must handle LRS in accordance with the Soils Management Plan and provide information in the Project Operations Plan regarding how LRS will be addressed outside the grading limits. Replacement material covered under 104.04 shall be compacted to the density requirements specified for roadway embankment construction.

10/31/16
SSD: 05/13/97, 12/09/98

BEDFORD
16156

August 8, 2017

SPECIAL PROVISION

AMENDMENT TO SECTION 105 -- CONTROL OF WORK

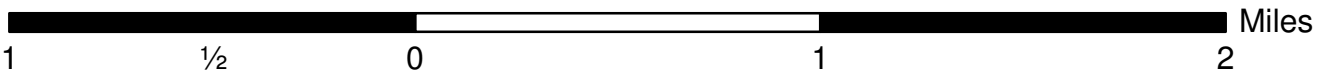
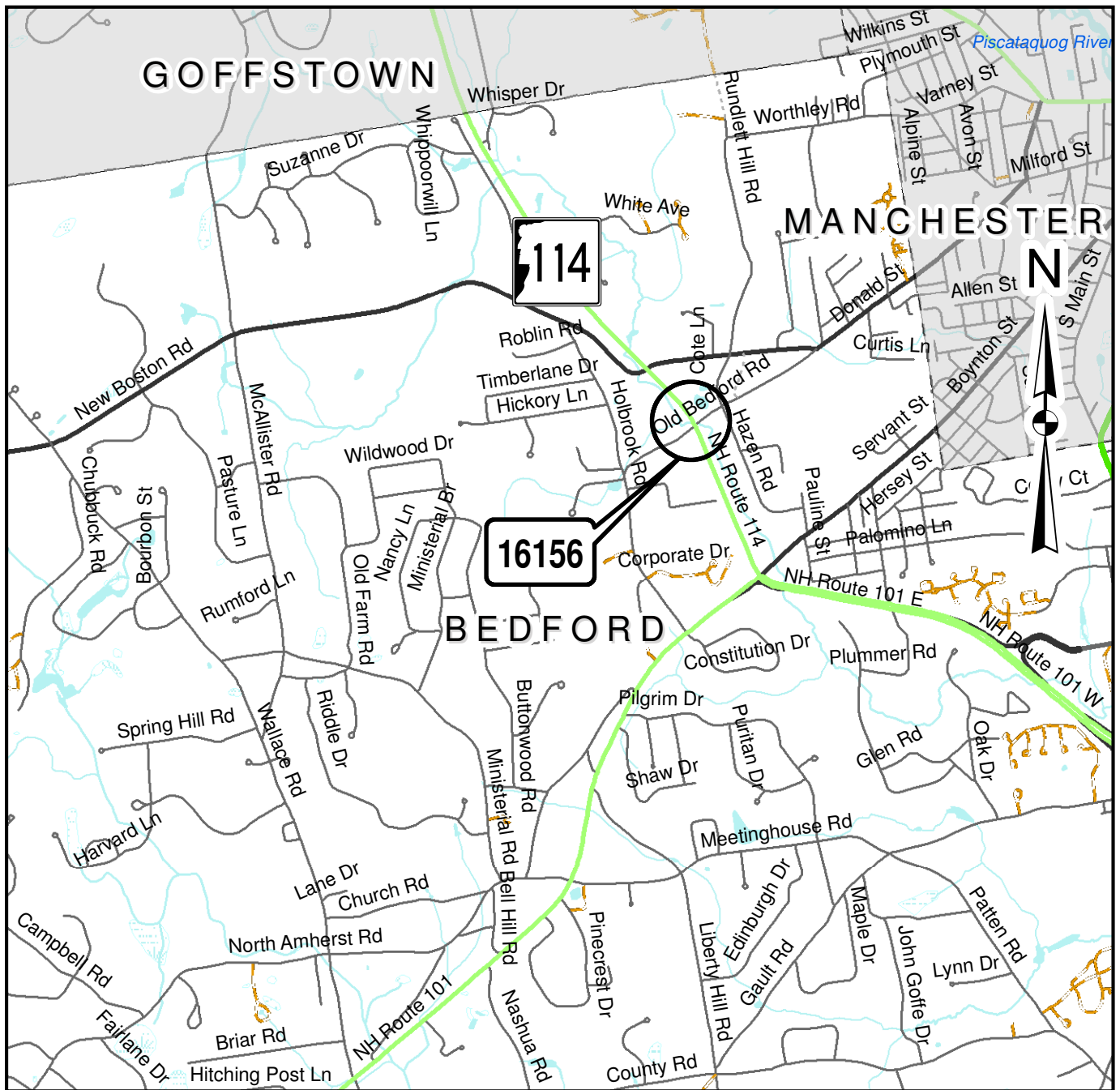
AMENDMENT TO SECTION 105.12 - CONSTRUCTION ZONE(S)

In accordance with Section 105.12 of the Standard Specifications, the construction work zone(s) designated for this contract shall extend 500 ft beyond the work limits as described below and/or as shown on the project layout map on the reverse of this page:

DESCRIPTION OF WORK LIMITS

The project area is located in the Town of Bedford, on NH 114 over Bowman Brook, and is also partially underneath the bridge that carries Old Bedford Road over NH 114. The work limits for the project begins approximately 350 feet south of the bridge and continues for approximately 575 feet north along NH 114.

BEDFORD - NH ROUTE 114



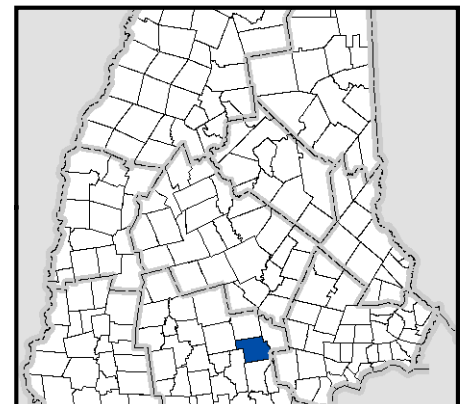
LEGEND

- Streams
- Water Bodies
- US Routes
- State Routes
- Interstates
- Local Roads
- Town Boundary

New Hampshire
DOT
 Department of Transportation

State # 16156
 Federal # X-A001 (160)

LOCATION MAP



SUPPLEMENTAL SPECIFICATION**AMENDMENT TO SECTION 106 – CONTROL OF MATERIAL**

*The purpose of this Supplemental Specification
is to revise frequency of QPL updates.*

Amend the last paragraph of 106.04 to read:

Products that have been prequalified by Materials and Research and are included on the Qualified Products List (QPL) may be used on projects without further testing, unless otherwise noted on the QPL, but a Certificate of Compliance for the qualified products will be required. The QPL is updated as warranted, and is available online at the Department's Website. A product that is not listed will not be used until qualified through a written request to Materials and Research. Such request should be made with sufficient lead-time to allow necessary testing or research.

August 29, 2017

SPECIAL PROVISION**AMENDMENT TO SECTION 106 -- CONTROL OF MATERIAL****AMENDMENT TO 106.10 – DISPOSAL OF SURPLUS AND WASTE MATERIALS***This special provision includes Limited Reuse Soil in this section.***Amend** 106.10 as follows:

When practicable and whenever directed, surplus and waste material, including LRS, shall be disposed of by flattening slopes or for other grading within the project. When specified as embankment-in-place surplus or stockpile surplus, the material shall be placed as shown on the Plans or as directed in the Proposal in accordance with the appropriate specification. In case it is impossible to dispose of all the surplus and waste material in the manner described above, adhere to the following:

- Non-LRS: It shall be the Contractor's responsibility to secure disposal areas for non-LRS surplus and waste materials. Disposal Agreements, as provided by the Department, for such areas must be submitted to the Engineer for approval. The [Disposal Agreement](#) form may be obtained on line at the [Department's Website](#) or from the Engineer.
- LRS: The LRS surplus and waste materials shall be managed as described in the Soils Management Plan.

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16156**

August 4, 2017

SPECIAL PROVISION

SECTION 107 -- LEGAL RELATIONS AND RESPONSIBILITIES TO PUBLIC

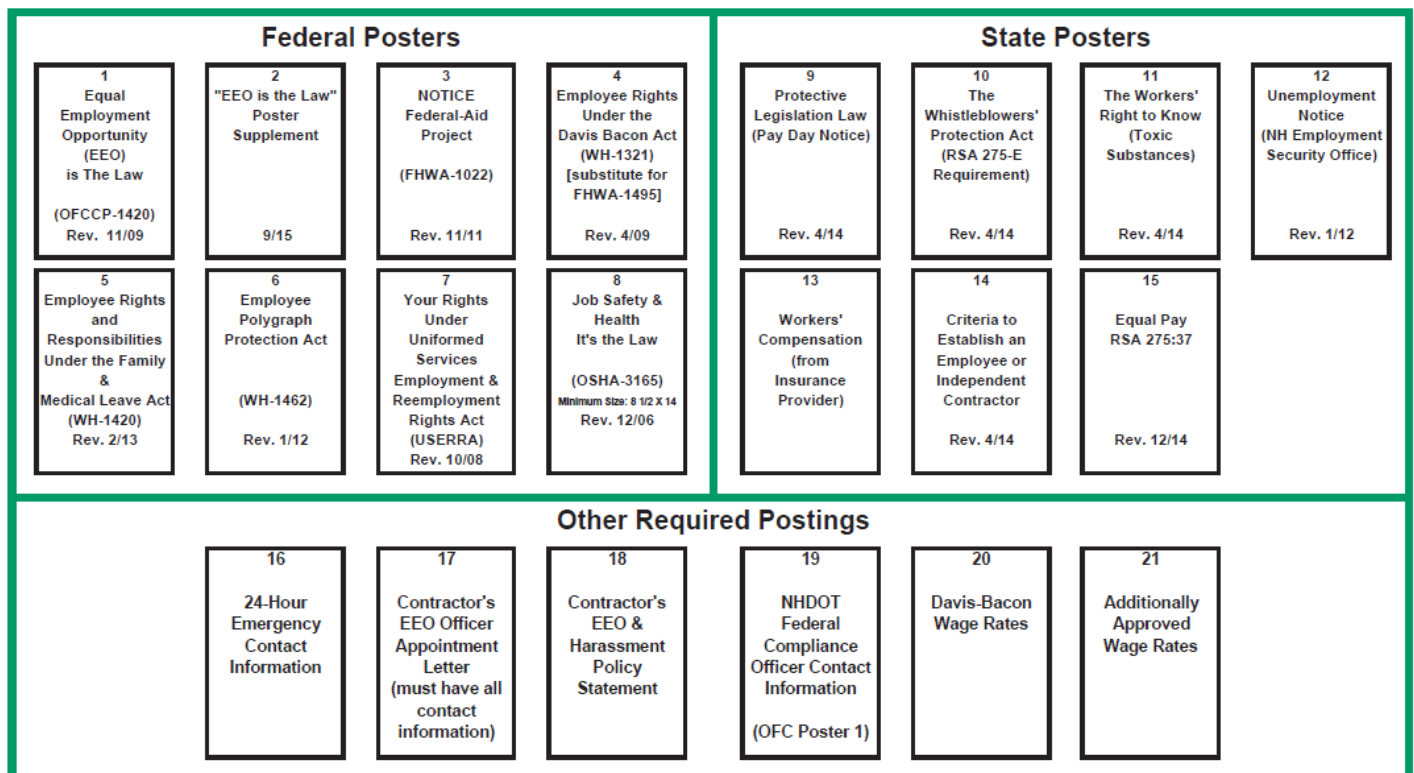
SUBSECTION 107.01 – LAWS TO BE OBSERVED

The intent of this Special Provision is to clarify Bulletin Board requirements.

Add to 107.01's third paragraph titled *Bulletin Board Requirements* the following:

New Hampshire Department of Transportation Bulletin Board Diagram (Revision 1-15-16)

NHDOT PROJECT: (NAME) (NUMBER)



12/4/01
Reviewed 6/10

**BEDFORD
16156**

August 30, 2017

SPECIAL PROVISION

AMENDMENT TO SECTION 108 -- PROSECUTION AND PROGRESS

AMENDING SUBSECTION 108.01 -- SUBLETTING OF CONTRACT

Amend the second sentence of the first paragraph of 108.01 to read:

The Contractor's organization shall perform work amounting to no less than **40 percent** of the total Contract bid amount.

06/20/11

Supersedes Spec. Prov. dated 10/11/83, 1/11/91, 11/20/97 & 09/01/10

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**BEDFORD
16156**

August 29, 2017

SPECIAL PROVISION**AMENDMENT TO SECTION 108 -- PROSECUTION AND PROGRESS****AMENDING SUBSECTION 108.07 - DETERMINATION CONTRACT TIME
EXTENSION FOR EXCUSABLE, NONEXCUSABLE, NONCOMPENSABLE AND
COMPENSABLE DELAYS****** See Prosecution of Work for applicable completion date(s). ******Amend** the fourth paragraph to read:

The Contractor's plea that insufficient time was specified is not a valid reason for an extension of time. When the contract sets forth a calendar completion date, due consideration will have been given to the Saturdays, Sundays, legal holidays, and the period between December 1 and April 1 inclusive in the anticipated period of construction. **No extension of the contract completion date will be allowed due to such days.** When the contract stipulates a completion date that falls on a Saturday, Sunday, or legal holiday, or when the time as extended by the Engineer falls on a date that is a Saturday, Sunday, or legal holiday, the contract time will be extended to the next working day. **No consideration will be given for unfavorable weather or ground conditions.**

Delete 108.07.B.2.

01/06/12

SSD: 12/07/04, 03/02/06, 08/08/07, 02/12/2008, 03/12/10, 09/01/10

109

SS

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S U P P L E M E N T A L S P E C I F I C A T I O N

AMENDMENT TO SECTION 109 -- MEASUREMENT AND PAYMENT

**AMENDMENT TO SUBSECTION 109.04 - DIFFERING SITE CONDITIONS,
CHANGES AND EXTRA WORK.**

Add the following after the first sentence of 109.04.4.4(d):

The average regional adjustment factor is **0.95**.

02/01/11

SSD: 06/27/08, 06/11/09, 03/29/10, 01/18/11

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**BEDFORD
16156**

August 29, 2017

SPECIAL PROVISION**AMENDMENT TO SECTION 201 -- CLEARING AND GRUBBING****Item 201.881 – Invasive Species Control Type I****Item 201.882 – Invasive Species Control Type II****Add** to Description:

1.5 Invasive species control shall consist of furnishing all labor (including, but not limited to, handling, cutting, stockpiling and spraying), materials, services, equipment and supplies required for removal and proper disposal of the vegetation listed in the Prosecution of Work. The intent of this item is to compensate the Contractor for all additional costs incurred due to the handling of invasive species during construction excavations. This item will be paid in addition to the appropriate pay items for the class excavation and/or embankment work being performed. Work shall be done in accordance with the *NHDOT's Best Management Practices for Roadside Invasive Plants* handbook and the specific Invasive Species Control and Management Plan developed for this project. This work shall be coordinated with the NHDOT Bureau of Environment.

1.5.1 Invasive species control type shall be as specified in the item description. The plant species of concern within the project limits will be specified in the Prosecution of Work.

Add: Materials section:

2.1 Backfill to replace contaminated soil that is excavated shall conform to the material requirements of the appropriate section of the Standard Specifications for the material to be placed at that location.

Add to Construction Requirements:**3.4 Invasive Species Control****3.4.1 Type I / Type II**

3.4.1.1 Invasive species control for Types I and II shall consist of:

- Cleaning equipment upon leaving the area of the infestation.

3.4.2 Type I

3.4.2.1 Invasive species control Type I methods shall consist of:

- July 1st through February 1st, when mature fruit are most likely present, chip plants and dispose of in a manner that precludes the spreading of mature seeds and/or fruit. Outside of this time period, usual clearing and grubbing methods shall be used.

3.4.3 Type II

3.4.3.1 Invasive species control Type II methods shall consist of one or more of the following treatment measures:

- Bagging cut plant material for later disposal.
- Removing cut plant material from the site to bury, burn, or stockpile on an impervious surface.
- Removing excavated material from an infested site to bury, or stockpile on an impervious surface.
- Applying herbicides to invasive plants.

3.4.3.2 Herbicides shall be registered with and approved for use by the New Hampshire Department of Agriculture, Division of Pesticide Control and applied by a licensed applicator.

3.4.3.2.1 If herbicide use is proposed, the Contractor, or his licensed herbicide applicator, shall submit a site-specific plan and application to the NH Department of Agriculture, Division of Pesticide Control (contact the Division at 603-271-3550 for information on their permitting process). Issuance of an herbicide application permit(s) may take up to three months for approval.

3.4.3.3 Burning invasive species shall be done in accordance with State and local regulations and Env A-1000 - Prevention, Abatement, and Control of Open Source Air Pollution issued by the New Hampshire Air Resources Division of Environmental Services, a copy of which is included in this Proposal.

3.4.3.3 Excavation, when required, shall be in accordance with the appropriate sections of the Standard Specifications.

3.4.3.4 Backfill in all excavated areas shall be placed and compacted in accordance with the plans and the appropriate sections of the Standard Specifications.

3.4.3.5 When required, disposal of invasive species materials and their contaminated soils by burying shall be in accordance with the appropriate sections of the Standard Specifications for Embankment-in-Place.

3.4.3.6 Monitor the project site for re-growth of invasive species in treated areas. If re-growth occurs secondary treatment shall be preformed. The Engineer may also order areas to receive secondary treatment.

Add to Method of Measurement:

4.6 Invasive species control of the type specified will be measured by the square yard (square meter) to nearest square yard (square meter) from measurements taken on the ground surface covered.

Add to Basis of Payment:

5.7 The accepted quantities of invasive species control of the type specified will be paid for at the contract unit price per square yard (square meter) complete in place.

5.8 Invasive Species Control and Management Plan, including monitoring invasive species re-growth, will be paid under Item 697.11.

5.9 Excavation of invasive species material will be paid under the appropriate contract items for the class of excavation being performed.

5.10 Materials required to replace material for excavated areas will be paid for as Item 203.6 – Embankment-In-Place or other appropriate items in the contract.

5.11 Disposal of invasive species material and their associated soils by burying within the road section will be paid under Item 203.6 – Embankment-In-Place.

5.12 Disposal of invasive species material outside of the road section but within the job limits, when allowed, will be paid as Item 203.1 – Common Excavation or Item 203.6 – Embankment-In-Place. Disposal of any surplus material from this excavation will be subsidiary to the work.

5.12.1 If disposal off-site is approved disposal fees will be paid as provided for in 104.02 and 109.04.

5.13 If standard clearing and grubbing methods are used per 3.4.2.1, no additional payment will be made under Item 201.88X.

Add to Pay Items and Units:

| | | |
|---------|----------------------------------|----------------------------|
| 201.881 | Invasive Species Control Type I | Square Yard (Square Meter) |
| 201.882 | Invasive Species Control Type II | Square Yard (Square Meter) |

August 29, 2017

SPECIAL PROVISION**AMENDMENT TO SECTION 203 -- EXCAVATION AND EMBANKMENT****Item 203.11 – Common Excavation - LRS**

This special provision addresses Limited Reuse Soil (LRS), including adding an item for excavating, handling, transporting, and stockpiling of LRS. All the requirements as set forth in the Standard Specifications are applicable except as modified or changed herein.

Add to 1.1:

1.1.1 This work shall consist of excavating, handling, transporting, and stockpiling of Limited Reuse Soil (LRS) in conformance with the Soils Management Plan.

Add to 2.1:

2.1.1 Common Excavation – LRS shall consist of all excavation of LRS as defined in 101.64 “A”.

Amend 3.1.2 as follows:

3.1.2 LRS. Topsoil and humus material shall be removed in excavation areas and also in fill areas to such depths as the Engineer may direct. Such material shall be reserved and shall be stockpiled in accessible piles that can be measured readily and accurately by the Engineer. Unless otherwise permitted, each stockpile shall contain a minimum of 200 cy, and have a height of at least 4 ft. Material defined as LRS must be reused on the Project unless otherwise stated in the Soils Management Plan or authorized in writing by the Engineer.

3.1.2.1 In areas where no measureable topsoil exists, the material from the top of ground to a depth of six inches is considered LRS. This material shall be stockpiled for reuse as described in 3.1.2.

Add to 3.7.1:

3.7.1.1 When placing LRS as embankment, refer to the Soils Management Plan for restrictions.

Amend 3.9 as follows:

3.9 Disposal of Surplus and Waste Material.

3.9.1 Definitions.

- (a) Surplus material. Excess material from excavation beyond the minimum requirements of the project but otherwise suitable for use.
- (b) Waste material. Material unsuitable for use in the work except in noncritical areas.
- (c) LRS. See 101.64“A”.

3.9.2 Blank.

3.9.3 When practicable and wherever directed, surplus and waste material shall be used for flattening slopes or for other grading within the project. If LRS materials are being used, refer to the Soils Management Plan for restrictions.

3.9.4 When specified as embankment-in-place surplus or stockpile surplus, the material shall be placed as shown on the plans or as directed in the Proposal in accordance with the appropriate specification.

3.9.5 In case it is impossible to dispose of all the surplus and waste material in the manner described above, the following shall apply:

- (a) Non-LRS: It shall be the Contractor's responsibility to secure disposal areas for approval for non-LRS surplus and waste materials as part of the excavation items if such areas are not shown on the Plans.
- (b) LRS: The Contractor shall manage the LRS material in accordance with the Soils Management Plan.

3.9.6 If disposal of surplus and waste material is by burying, the cover material shall be graded and shaped as directed by the Engineer. If material is to be placed on private land, the agreements as to how the disposal area is to be left shall be set forth on the Disposal Agreement form provided by the Department in accordance with 106.10. Three signed copies of the Disposal Agreement shall be furnished to the Engineer. Approval of the proposed disposal area will be contingent upon agreement by the Contractor and the property owner to leave the area in such shape that it blends with the surrounding terrain and that erosion is kept to a minimum. Without special permission, slopes shall not be left steeper than 2:1 (horizontal to vertical). No disposal area shall be left in such condition that erosion might result in water pollution by silt or other deleterious substances. Areas shall be left in such shape and condition that material does not wash and block or obstruct drainage ways. If holes caused by settlement appear, they shall be filled as directed. A release from the property owner is required prior to Project Acceptance. LRS material shall only be placed on property under the control of the Department or as specified in the Soils Management Plan.

05/09/17

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3.9.7 Unless otherwise ordered, disposal areas shall be covered with material capable of supporting vegetation and either fertilized and seeded with grass seed or planted with seedlings. Seedlings shall be set out in accordance with accepted horticultural practices as directed in the agreement.

3.9.8 Unless permission is given to preserve access roads to disposal areas adjacent to highways, such access roads shall be obliterated.

3.9.9 When the Contract requires the removal of intact existing pavement but does not require recycling, the Contractor is encouraged to save this bituminous material for future reuse. This material is considered to be a valuable resource because of the residual asphalt contained in it. Therefore, no existing bituminous pavement removed shall be incorporated in the embankment. If the Contractor elects to dispose of bituminous material it shall be disposed of in accordance with the Department of Environmental Services Waste Management Division regulations at no expense to the State.

3.9.9.1 Milled or reclaimed pavement shall be disposed of or recycled in accordance with the project's Soils Management Plan.

Amend 3.11.2 as follows:

3.11.2 Sources. Unless otherwise designated in the Contract, the Contractor shall make arrangements for obtaining material for embankment-in-place in accordance with 106.02. Permission to remove material beyond the template lines within the right-of-way and adjacent thereto shall be obtained in writing before any material is removed and will be contingent on many factors and if permission is granted, it will be by the Engineer after review by all interested parties. The Contractor shall provide information in the Project Operations Plan (POP) regarding how LRS will be managed outside the template in accordance with 104.04. Permission may be contingent, among other considerations, upon agreement by the Contractor to leave regular and uniform slopes in the area. Slopes excavated beyond the template lines without authorization shall be refilled when ordered, at no expense to the State. When permission to remove material beyond template lines within the right-of-way is granted, the cubic yard price will be contingent upon material type and agreed upon prior to authorization.

Amend 4.2.1 as follows:

4.2.1 If the actual topsoil (LRS) removal, the actual unsuitable material excavation, or the actual muck excavation beneath embankment areas differs from the estimated quantity shown on the Plans and backfill, an adjustment will be made to the final pay quantity of embankment-in-place equal to the actual increase or decrease from the estimated quantity for the material excavated.

Amend 5.1.4 as follows:

5.1.4 LRS removal will be paid for as Common Excavation-LRS. Payment of Common Excavation-LRS excavation will be full payment for excavating, handling, transporting, and stockpiling LRS at approved locations.

05/09/17

Page 4 of 4

5.1.4.1 When topsoil is overlying muck, excavation will be included in and paid for as muck excavation. Payment of muck excavation will be full payment for excavating, transporting, and stockpiling muck at approved locations.

Add to Pay items and units:

203.11 Common Excavation – LRS

Cubic Yard

1/17/02

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16156

August 29, 2017

SPECIAL PROVISION

AMENDMENT TO SECTION 203 – EXCAVATION AND EMBANKMENT

Item 203.601 – Embankment-in-Place

Amend 4.1 to read:

4.1 Excavation, embankment-in-place, borrow, impervious material, and rehandling surcharge material will be measured by the cubic yard (cubic meter) in accordance with 109.01. Material removed from outside of template lines without prior approval will not be measured.

Amend Method of Measurement 4.2 to read:

4.2 When the item of embankment-in-place is included in the proposal, no measurements of any borrow pits will be made for the purpose of establishing pay quantities for any item, and the item of borrow will not appear in the proposal.

Delete 4.2.1.

Amend 5.1.1 to read:

5.1.1 The item of embankment-in-place will be paid only for those materials for which payment is not specified under a separate item.

Amend Basis of Payment 5.1.9 to read:

5.1.9 Backfill material meeting the requirements of 3.6.1 (1), (2) or (3) used to backfill unsuitable material excavation or muck excavation will be paid for under the item directed to be used by the Engineer.

Add to pay items and units:

| | | |
|---------|---------------------|------------|
| 203.601 | Embankment-In-Place | Cubic Yard |
|---------|---------------------|------------|

August 29, 2017

SPECIAL PROVISION**SECTION 500 -- ACCESS FOR BRIDGE CONSTRUCTION****Item 500.0201 - Access for Bridge Construction****Item 500.0202 - Access for Bridge Construction****Description**

1.1 This work shall consist of the design, construction, maintenance and removal of temporary access by the Contractor for bridge construction. This work shall include storage and staging areas, temporary access roads (stone fill, geotextile fabric, excavation, fill, and excavation support including temporary and permanent sheeting), temporary bridges, work trestles, work platforms, necessary for bridge construction. The limits of the available work areas shall be as indicated on the plans or as permitted.

Materials

2.1 All materials to be used in the construction of the temporary bridges, work trestles and platforms shall be subject to inspection and approval prior to their incorporation in the work. Used materials will be acceptable, provided appropriate allowances are made for their condition.

2.2 Temporary or permanent stone fill shall meet the requirements of Section 585 for Stone Fill, Class B, Class B (Bridge) or Class C.

2.3 Geotextile fabric shall meet the requirements of Section 593 for Geotextile Separation, Class 1 and Permanent Erosion Control, Class 1.

Construction Requirements

3.1 The Contractor is advised that the plans for this project have been prepared based upon access for bridge construction from temporary bridges, work trestles, work platforms and temporary access roads as indicated on the plans.

3.1.1 Locations of temporary bridges, sheeting, access roads and excavation support may be adjusted by the contractor per approval of the Engineer and shall not extend outside of acquired right-of-way or violate any applicable environmental permits. The Contractor may obtain amendments to the environmental permits at their own cost if needed.

3.2 Temporary bridges, work trestles and platforms shall meet the minimum strength requirements to carry all construction equipment and materials at stress levels not to exceed 33% greater than the stresses allowed in the current AASHTO “Standard Specifications for Highway Bridges” as amended.

3.3 Detailed plans and calculations showing sizes, arrangements, connections, bracing, and quality of materials to be used in temporary bridges, work trestles and platforms shall be submitted to the Engineer for documentation. The plans and calculations shall be designed by a Licensed Professional Engineer licensed in the State of New Hampshire and bear the Engineer’s seal.

3.3.1 The height of the temporary bridges, work trestles and platforms shall be sufficient to allow for construction of adequate bracing and also to have a minimum effect on the environment. Consideration shall be given to ice conditions in the river (if applicable) in the design of the bridges, work trestles and platforms.

3.3.2 Temporary bridges, work trestles and platforms shall be of sufficient geometric and structural capacity to handle all anticipated loads resulting from the construction of the proposed bridge.

3.4 All access road work of preparing, improving and restoring roads as required to provide access to the bridge construction site shall be performed in accordance with the applicable governing specifications and the plans. Such work may involve clearing, grading, slope stabilization, construction of base courses, hot bituminous pavement, temporary fencing and gates, temporary drainage, dust abatement where required, and maintenance of affected roadway embankments, guard rail, and drainage structures as directed by the Engineer.

3.5 Clearing shall involve the removal of vegetation to the limits shown on the plans. Stumps and existing topsoil shall not be removed except as required or as directed by the Engineer. No trees outside the clearing limits shall be removed without approval of the Engineer.

3.6 When the temporary access roads, storage and staging areas, bridges, work trestles, work platforms are no longer required, they shall be completely removed and the area cleaned up, graded, landscaped and restored to the satisfaction of the Engineer to a condition equal to or better than that originally found or as shown on the plans.

3.6.1 Disturbed slopes steeper than 1.5 horizontal to 1.0 vertical will require restoration with stone fill and permanent erosion control as shown on the plans.

Method of Measurement

4.1 Access for bridge construction will be measured as a unit. A unit will consist of the design, materials, construction, maintenance and removal of temporary access for bridge construction.

Basis of Payment

5.1 The accepted quantity of access for bridge construction will be paid for at the contract unit complete in place.

5.1.1 No additional payment will be made for removal of access for bridge construction.

5.1.2 No additional payment shall be made for all excavation support required for access for bridge construction including permanent sheeting.

Pay item and unit:

| | | |
|----------|--------------------------------|------|
| 500.0201 | Access for Bridge Construction | Unit |
|----------|--------------------------------|------|

| | | |
|----------|--------------------------------|------|
| 500.0202 | Access for Bridge Construction | Unit |
|----------|--------------------------------|------|

SPECIAL PROVISION**AMENDMENT TO SECTION 520 -- PORTLAND CEMENT CONCRETE****Item 520.32 – Grouting Voids in Backfill Material****Description****Add** to 1.1

1.1.2 This work shall consist of the in-place grouting of voids behind an existing culvert, as shown on the plans. The requirements of the work for Item 520.32 are such that all voids in the backfill material surrounding the existing pipe, including areas above the pipe, are located and filled with grout for the full length of the pipe.

Add to 2.11:

2.11.4 Grout shall consist of materials conforming to 520.2 as appropriate, mixed in the following approximate proportions per cubic meter (cubic yard) to form a mixture with a minimum 18 day compressive strength as noted below. All grout shall be batched from an approved automated batch plant in accordance with the requirements of Subsection 3.1.2

Item 520.32 Grouting Voids In Backfill Material

| | |
|--------------------------------------|--------------------------------|
| Portland Cement (Type II) | 20 pounds (12 kg) |
| Ground Granulated Blast Furnace Slag | 100 pounds (60 kg) |
| Sand | 2,830 pounds (1680 kg) |
| Water | 40-50 gallons (200-250 liters) |
| Air Entrainment | 10-15 percent |
| 18 Day Compressive Strength | 100 PSI (0.7 MPa) |
| 12 Hour Compressive Strength | 50 PSI (0.35 MPa) |

2.11.4.1 Test data of the proposed mixtures shall be submitted to the Engineer for review and approval prior to placing.

Add to Construction Requirements:**3.13 Grouting.**

3.13.1 Prior to the preparation of the existing surface (521.1.1), the Contractor shall provide an engineered plan of the strutting and bracing of the existing culvert during operations of; cleaning, preparation, grouting, and shotcrete lining. The Contractor shall engage the services of a Professional Engineer registered in the State of New Hampshire to design each strutting and

bracing system which the Contractor proposes for installation. The Contractor's Engineer shall submit copies of design calculations and Plans to the Engineer.

3.13.2 The Contractor shall inspect the existing dewatered culvert. The Contractor and the Contract Administrator shall jointly identify voids in the backfill surrounding the existing culvert by visual inspection, chain drag, or other approved sounding method. The Contractor shall fill all voids by cutting holes in the culvert or installing grout nipples and pumping grout into the area of lost backfill. It may be possible to fill voids in the backfill from the roadway surface. The Contractor shall submit a plan of his proposed method of grouting these voids for approval by the Engineer.

3.13.3 All grouting equipment shall be approved by the Engineer at least five (5) working days prior to its intended use. A working demonstration of the pumping equipment's capability will be required as part of the approval procedure.

3.13.4 Grout shall be transferred from the point of mixing to the points of deposition only by approved equipment. The grout shall be pumped in such a manner that:

1. The grout does not dilute or separate.
2. The pipe is not deformed.

3.13.5 Agitation shall be continuous and shall be continued during shut-downs. If a shut-down equals or exceeds 15 minutes, the grout shall be circulated through the pump delivery lines. If required by the Engineer, the delivery lines shall be flushed clean of grout with clean water. If in the opinion of the Engineer, the grout has begun to set in the agitator, pump, or lines, it shall not be placed regardless of reason.

Add to Method of Measurement:

4.4 Grout will be measured by the cubic yard (cubic meter) to the nearest 0.1 of a cubic yard (cubic meter) of grout based on delivery slips of material placed.

4.4.1 Grout removed because of faulty workmanship, or remaining in the delivery vehicle will not be included in the pay quantity.

Add to Basis of Payment:

5.10 The accepted quantities of grout will be paid for at the contract unit price per cubic yard (cubic meter) complete in place.

5.10.1 Submittal of engineered strutting and bracing plan shall be subsidiary to Item 520.32.

5.10.2 All work associated with placing grout in the voids in the fill material around the existing pipe including but not limited to the inspection of the existing pipe, sounding for voids, and strutting and bracing shall be subsidiary to Item 520.32.

Add to Pay Items and Units:

| | | |
|--------|-------------------------------------|--------------------------|
| 520.32 | Grouting Voids in Backfill Material | Cubic Yard (Cubic Meter) |
|--------|-------------------------------------|--------------------------|

S U P P L E M E N T A L S P E C I F I C A T I O N
AMENDMENT TO SECTION 538– BARRIER MEMBRANE

The purpose of this Supplemental Specification is to update the laydown temperature range for pavement overlays in connection of welded barrier membrane.

Amend 3.3.5 to read:

3.3.5 Application of Hot Bituminous Overlay. The deck shall be paved within 3 days of membrane application unless otherwise permitted by the Engineer. The required laydown temperature of pavement overlays used in connection with heat-welded barrier membrane shall be as stipulated on the Qualified Products List. It should be noted that the laydown temperatures are extremely critical in order to preserve membrane integrity.

**BEDFORD
16156**

August 9, 2017

SPECIAL PROVISION

AMENDMENT TO SECTION 585 – STONE FILL

Item 585.3401 – Simulated Streambed Material

Add to Description:

1.2 This work shall consist of furnishing and placing Simulated Streambed Material at the following location on this project:

1. Bridge No. 151/151 - NH Rte 114 Over Bowman Brook

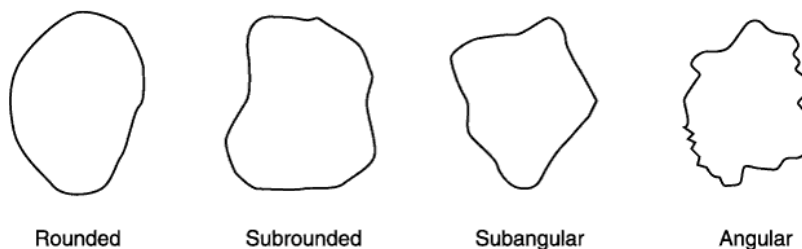
1.2.1 The Simulated Streambed Material shall be placed in locations as shown on the contract plans. The intent is to protect and replicate the natural streambed environments of the reference reach listed above. The percentage of specific stream bed material was determined in the field utilizing the Wolman Pebble Count methodology. The gradation of substrate particle sizes are based on the Wentworth scale as referenced in the Guidelines for Naturalized River Channel Design and Bank Stabilization.

Add to Materials:

2.1.6 Simulated Streambed Material shall consist the following gradation

| | <u>% by Weight</u> | <u>Sieve Sizes (in)</u> | |
|---------|--------------------|-------------------------|---|
| Sand | 24 % | 0.003 to 0.08 | (smaller than head of a match) |
| Gravel | 51 % | 0.08 to 2.5 | (between head of match and tennis ball) |
| Cobble | 22 % | 2.5 to 10.00 | (between tennis ball and volleyball) |
| Boulder | 3 % | 10.0 to > | (Larger than volleyball) |

Particle shape shall generally conform to: Subrounded.



Streambed Material shall be 12" thick unless noted otherwise in the contract plans.

Add to 3.1:

3.1.3 In accordance with the *Guidelines for Naturalized River Channel Design and Bank Stabilization*, specifically 2.2.1.2 Semi-Natural Form Design, the Streambed Material shall be placed directly on the existing channel floor as shown in the contract plans. In cases where scour protection or streambed anchorage material is required the scour/anchorage material shall be placed first. Then the Streambed Material shall be worked into the top 1'-0" filling voids, followed by the depth of Streambed Material specified.

Method of Measurement

Add to Method of Measurement:

4.2 Simulated Streambed Material will be measured by the cubic yard.

Basis of Payment

Add to Basis of Payment:

5.1.1 The accepted quantity of Simulated Streambed Material will be paid for at the Contract unit price per cubic yard complete in place.

Add to Pay Items and Units:

| | | |
|----------|------------------------------|------------|
| 585.3401 | Simulated Streambed Material | Cubic Yard |
|----------|------------------------------|------------|

August 24, 2017

SPECIAL PROVISION**DIVISION 600 – INCIDENTAL CONSTRUCTION****SECTION 602 – PIPE LINING****Item 602.41190 – Centrifugally Cast Concrete Liner****Description**

1.1 The work shall consist of the repair of culverts by the installation of a cementitious lining centrifugally cast in place for the waterproofing, sealing, structural reinforcement and corrosion protection of existing concrete culvert pipe, corrugated steel culvert pipe and other material culvert pipe. The centrifugally cast concrete liner shall extend over the specified length forming a continuous concrete pipe within a pipe.

1.2 Calculations for the design of the proposed liner shall be submitted for approval in accordance with section 105 of the Standard Specifications. The design of the proposed liner shall be in accordance with the AASHTO 2014 LRFD Bridge Design Specifications seventh edition with 2016 interims, using the LRFD method, HL-93 design load, and without any contribution in strength from the existing corrugated steel culvert pipe. These calculations shall be prepared and stamped by a Professional Engineer licensed in the State of New Hampshire.

1.3 A load rating for the liner shall be submitted for approval in accordance with section 105 of the Standard Specifications. The bridge rating shall be in accordance with the AASHTO 2011 Manual For Bridge Evaluation second edition, with 2016 interims, using the LRFR method and HL-93 loading. The NHDOT Form 4 Bridge Capacity Summary shall be prepared and stamped by a Professional Engineer licensed in the State of NH.

1.4 Shop plans detailing the information outlined in section 3.4 of this special provision, along with the load rating, and calculations shall be combined in one complete package and submitted for approval in accordance with section 105 of the Standard Specification.

Materials**2.1 Centrifugally Cast Concrete Liner.**

2.1.1 Invert Mortar: The material used in the repair of the missing or deteriorated pipe invert shall be an ultra-high strength, high build, abrasion resistant and corrosion resistant mortar, based on advanced cements and additives including rust inhibitors. It shall be mixed with the appropriate amount of water to create a self-consolidating free flowing material that develops a high 24-hour compressive strength and adhesion. Per ASTM C-76, in no case shall the proportion of Portland cement, blended with hydraulic cement, or a combination of Portland cement and supplementary cementing materials be less than 470 lb/yd³.

The physical properties of the invert mortar shall be as follows:

| | |
|-----------------------------------|-----------------------------|
| Set Time at 70°F ASTM C-403 | |
| Initial Set | Approx. 150 minutes |
| Final Set | Approx. 240 minutes |
| Flexural Strength ASTM C-293 | |
| 24 hours | min. 800 psi |
| 28 days | min. 1,200 psi |
| Compressive Strength ASTM C-109 | |
| 24 hours | 5,000 psi |
| 28 days | 11,500 psi |
| Split Tensile Strength ASTM C-496 | 700 psi |
| Shear Bond ASTM C-882 | 1,720 psi |
| Modulus of Elasticity ASTM C-469 | |
| 28 days | min. 3.48×10^6 psi |
| Freeze Thaw ASTM C-666 | 300 Cycle Pass |

2.1.2 Pipe Liner Mortar: The pipe lining material shall be a high strength, high build, abrasion resistant and corrosion resistant mortar, based on advanced cements and additives. Per ASTM C-76, in no case shall the proportion of Portland cement, blended with hydraulic cement, or a combination of Portland cement and supplementary cementing materials be less than 470 lb/yd³. In addition and due to its properties no more than 10% fly ash shall be permitted in the design. When mixed with the appropriate amount of water, a paste-like material which can be sprayed, cast or pumped into areas ¼ inch and larger shall be obtainable.

2.1.2.1 Fibers shall be added, per the manufacturer's recommendations, as an aid to the centrifugal casting process, for increased cohesion and to enhance flexural strength.

2.1.2.2 The water content shall be adjusted to achieve consistencies ranging from plastic to modeling clay. The lining mortar shall be capable of being cast against soil, metals, wood, plastic or other normal construction materials.

2.1.2.3 The physical properties of the lining mortar shall be as follows:

| | |
|-----------------------------------|--|
| Set Time at 70°F ASTM C-403 | |
| Initial Set | Approx. 150 minutes |
| Final Set | Approx. 240 minutes |
| Flexural Strength ASTM C-293 | |
| 24 hours | min. 600 psi |
| 28 days | min. 1,340 psi |
| Compressive Strength ASTM C-109 | |
| 24 hours | 3,000 psi |
| 28 days | 8,000 psi |
| Split Tensile Strength ASTM C-496 | 682 psi |
| Shear Bond ASTM C-882 | 2,100 psi |
| Modulus of Elasticity ASTM C-469 | |
| 28 days | min. 3.0×10^6 psi max. 5.0×10^6 psi |
| Freeze Thaw ASTM C-666 | 300 Cycle Pass |
| Coulomb rating | <50 |

2.1.2.4 The bags of the mortar materials shall be stored in a cool, dry location until the Contractor is ready to use the material.

Construction Requirements

3.1 Centrifugally Cast Concrete Liner: The liner material shall be applied to achieve a 2” minimum thickness. For structural plate culvert bolted connections, the cover over projecting bolts shall be a minimum of 1-inch. Bolt projections may be cut back to the face of the nuts using an abrasive disk or saw blade, in no case shall the nuts be removed, or the integrity of the bolted connections be compromised. The 2” thickness shall be measured from the I.D. of the pipe (top of the inward corrugation’s crest). The bottom portion of the pipe liner, shall be roughened for a height of 24” above the pipe invert, and shall have a Manning’s number of 0.018; the upper portion of the liner shall have a Manning’s number of 0.014.

3.1.1 Prior to installing the pipe liner, the existing culvert shall be clear of obstructions, such as: solids/debris, dropped joints, roots, protruding lateral or collapsed pipe that will prevent installation. After the entire pipe is free from all obstructions, the interior surface of the pipe shall be cleaned with a high-pressure water-blast, sufficient to remove all laitance and loose material and flush debris from the pipe. Rusted portions of the corrugated steel pipe shall be removed or sand blasted to white metal and coated with an approved epoxy rust protector, per the manufacturer’s recommendations.

3.1.2 Item 520.32 shall be used to grout any voids found in the backfill material surrounding the existing culvert, prior to installing the concrete liner. See special provisions for detailed requirements.

3.1.3 Check equipment used to mix and pump the material. Prior to inserting delivery hoses into the culvert, pump and recirculate the material until the temperature specified by the manufacturer is reached.

3.1.4 Areas of water seepage shall be sealed off by an approved method. Pools of water shall be removed; however, a dry surface is not required. The Contractor shall patch holes and fill voids in and around existing pipe as directed by the Engineer. Before the initiation of lining, visually test the material by test spraying onto a test card.

3.1.5 The Contractor shall combine the packaged dry mix with the Manufacturer’s specified amount of potable water with mixing to be accomplished using a high-speed shear type mixer until proper consistency is obtained. The Contractor shall continue to agitate the mortar to prevent thickening beyond the desired fluidity.

3.1.6 Application. The Contractor shall position the bi-directional rotating casting applicator within the culvert pipe as required by the Manufacturer and commence pumping the mortar. As the mortar begins to be centrifugally cast evenly around the interior, the Contractor shall retrieve the applicator head at the best speed for applying the thickness that has been specified. If the mortar flow is interrupted for any reason, the Contractor shall arrest the retrieval of the applicator head until

the mortar flow is restored. Throughout the application process, the Contractor shall verify the thickness using an appropriate tool.

3.1.7 Surface Finish. Troweling of the newly applied cement-mortar shall be done mechanically with either rotating trowels or a conical drag trowel attached to the lining machine. Hand place cement-mortar and trowel in places where machine lining is impractical (such as sharp bends and areas closely adjacent to valves). Refer to section 3.1 roughness requirements.

3.1.8 Hot Weather Application (Above 80°F). The Contractor shall not apply the mortars when the ambient air and/or surface temperature of the culvert pipe is 100°F or higher. Shade the material and prepare the surface to keep it cool. To extend the working time of the mortar when the ambient air temperature is 80°F or higher, but below 100°F, the Contractor is advised to combine the mortar mix material with cool or ice-cooled water. When working at these elevated temperatures, the Contractor shall make certain that the substrate is saturated surface-dry (SSD) before the mortar lining application begins.

3.1.9 Cold Weather Application (Above 45°F). The Contractor shall not apply the mortars when ambient air temperatures are expected to fall below 45°F within 72 hours of placement. Both the ambient air and substrate temperatures must be at least 45°F at the time of placement. Low substrate and ambient air temperatures will slow down the rate of set and strength development. At temperatures below 65°F, the Contractor is advised to warm the material, water and substrate. Properly ventilate the area when heating. Protect the new liner from freezing.

3.1.10 Curing. The Contractor shall use an ASTM C309 conforming curing compound.

3.1.11 The lined pipe shall be thoroughly rinsed with clean water. Temporary erosion control measure shall remain in place until the pipe has cured and is reinstated.

3.2 General Installation.

3.2.3 Prior to entering access areas and performing inspection or cleaning operations, test the atmosphere in the insertion pits to determine the presence of toxic or flammable vapors, or the lack of oxygen in accordance with local, state, or Federal safety regulations.

3.2.4 Inspect the existing culvert to determine the location of any conditions that may hinder proper insertion of the cured-in-place lining liner, and clear obstructions. If obstructions cannot be cleared, point repair excavation shall be used to remove and repair the obstruction.

3.2.5 A minimum of nine test cubes of the mortar material shall be taken randomly per day as directed by the Engineer to verify strengths at 24 hours, 7 days, and 28 days. Thickness can be verified with a wet gage at any random point of the new interior surface. Any areas found to be thinner than the specified minimum shall immediately receive additional material. Visual inspection shall verify a leak-free, uniform appearance.

3.2.6 The warranty requirements for all liner applications shall be 2 years from time of completion. During this period, defects discovered shall be repaired at the contractor's expense.

3.3 Centrifugally Cast Concrete Liner Contractor Qualifications. The Contractor conducting the centrifugally cast lining installation shall be trained and certified to operate the installation equipment and shall have at least five (5) years' experience in similar installations. Minimum requirements shall be the experience of at least 6 installations in a similar nature to that specified herein. Liner installation operations shall be performed under the constant direction of a qualified supervisor who shall be on site and be in responsible charge throughout the operation. The supervisor shall have supervised installations on at least five (5) previous projects of similar size, type, and complexity.

3.4 Submittals.

3.4.1 Qualifications of the Centrifugally Cast Concrete Liner Contractor.

- a. Name, business, address and telephone of the Centrifugally Cast Concrete Liner Contractor.
- b. Experience in successfully constructing pipelines by the method proposed to be used to install the concrete liner for this project.
- c. List of similar projects for the last five (5) years including the name of contact person and telephone number.
- d. Certification of workmen training.
- e. Name(s) of all supervisory personnel to be directly involved with the project.
- f. The concrete liner Contractor shall sign and date the information provided and certify that to the extent of his knowledge, the information is true and accurate, and that the supervisory personnel for the installation operations will be directly involved with this project. Substitution of personnel and/or methods will not be allowed without the written authorization of the Engineer.

3.4.2 Construction Procedures.

- a. Written description of the construction method and equipment to be used, and locations required for equipment and material access, and storage.
- b. Written description for the application of the centrifugally applied cementitious material.

3.4.3 Contingency Plans. The Contractor shall develop and submit written contingency plans for handling problem scenarios that may be encountered. The list of potential scenarios includes, but is not limited to:

- a. Major mechanical breakdown
- b. Leakage
- c. Unexpected high water/storm events

3.4.4 Equipment.

- a. Written description and documentation of the equipment to be used. All equipment needed for installation of the liner shall be in good condition and capable of completing the project without delays.

3.4.5 Materials.

- a. Written description and documentation of the materials and other products to be used.

Method of Measurement

- 4.1** Pipe lining will be measured by the linear foot to the nearest 0.5 of a foot complete in place.
- 4.2** No separate measurement will be made for pre-installation or post-installation video inspection.

Basis of Payment

- 5.1** The accepted quantities of pipe lining will be paid for at the contract unit price per linear foot of the kind, type, and size specified complete in place, including inspection, cleaning and repair of existing pipe; set-up and installation; and any materials and labor necessary for complete installation not paid for separately under other bid items.
- 5.2** No separate payment will be made for pre-installation or post-installation video inspection. Cost shall be included in the linear foot cost of the pipe rehabilitation.

Pay item and units:

| | | |
|-----------|---|----|
| 602.41190 | Centrifugally Cast Concrete Liner for 90" CMP | LF |
|-----------|---|----|

09/18/14
SSD: 11/26/03

**BEDFORD
16156**

August 17, 2017

SPECIAL PROVISION

AMENDMENT TO SECTION 603 -- CULVERTS AND STORM DRAINS

Item 603.990__ - __ in. Temporary Drainage Pipe
Item 603.389__ - Temporary End Section for __ in. Pipe

Add to Materials:

2.8.4 Temporary end sections shall meet the requirements of 2.8 except used end sections may be allowed.

2.8.4.1 The thickness of the metal or class of concrete end section shall match the pipe furnished that the end section is connected to.

Add to Materials:

2.13 Temporary drainage pipe shall meet the requirements of 2.1, 2.2 or 2.3 except used pipe approved by the Engineer may be allowed.

2.13.1 The Contractor shall determine the D-load or thickness of steel or aluminum needed.

Add to Construction Requirements:

3.11 Temporary pipe and/or temporary end sections shall be removed from the project and remain property of the Contractor upon completion of the project, or when no longer needed.

Add to 5.1:

5.1.4 Removal of temporary pipe and/or temporary end sections shall be subsidiary.

Add to pay items and unit:

| | | |
|-----------|---------------------------------------|-------------|
| 603.990__ | __ in. Temporary Drainage Pipe | Linear Foot |
| 603.389__ | Temporary End Section for __ in. Pipe | Each |

SUPPLEMENTAL SPECIFICATION

AMENDMENT TO SECTION 603 -- CULVERTS AND STORM DRAINS

The purpose of this Supplemental Specification is to allow polypropylene pipe, clarify UV light requirements as well as Contractor's Option requirements.

Amend 2.3 to read:

2.3 Plastic Pipe.

2.3.1 Manufacturers of Polyvinyl Chloride (PVC) pipe, Polyethylene (PE) pipe and Polypropylene (PP) pipe must participate in and maintain compliance with the AASHTO National Transportation Product Evaluation Program (NTPEP) that audits producers of plastic pipe.

2.3.2 Polyvinyl chloride profile wall pipe shall conform to the requirements of AASHTO M 304. PVC pipe and associated fittings shall not be used in applications where it will be exposed to long term ultraviolet light .

2.3.3 Polyethylene pipe shall conform to the requirements of AASHTO M 252 or M 294, Type C, Type S, or Type D as specified on the plans. PE pipe and associated fittings shall be protected from ultraviolet light degradation by the inclusion of carbon black as specified in AASHTO M 294.

2.3.4 Polypropylene pipe shall conform to the requirements of AASHTO M 330, Type C, Type S, or Type D as specified on the plans. PP pipe and associated fittings shall be protected from ultraviolet light degradation by the inclusion of carbon black or ultraviolet light stabilizers as specified in AASHTO M 330.

2.3.5 Only soil tight pipefittings supplied or recommended by the manufacturer shall be used, unless otherwise specified.

2.3.6 When watertight joints are specified, watertight pipefittings supplied or recommended by the manufacturer shall be used and shall conform to ASTM D3212.

2.3.7 When the item description includes plastic pipe or plastic pipe material with the plastic material type not specified, either polyvinyl chloride, polyethylene, or polypropylene pipe shall be furnished meeting the requirements of 2.3.

Amend 2.6 to read:

2.6 Pipe for Slope Drainage.

2.6.1 Pipe for slope drain shall conform to the requirements of 2.3 and shall be limited to Type C.

2.6.2 The pipe coupler for plastic pipe shall consist of a plastic coupler and a minimum of 2 stainless steel or 3 plastic bands installed on the exterior corrugations. Slope pipe coupling bands shall engage a minimum of two full corrugations of each pipe section being joined, and shall be reinforced to meet the criteria for the "Downdrain Joint" category of Section 26 of the AASHTO LRFD Bridge Construction Specifications.

Amend 2.7 to read:

2.7 Pipe for Drives and Minor Approaches.

2.7.1 It shall be the Contractor's option to furnish reinforced concrete pipe or corrugated aluminized steel type 2 pipe, unless otherwise specified, for pipe for drives and minor approaches. Reinforced concrete pipe shall meet the requirements of 2.1. Corrugated aluminized steel pipe shall meet the requirements of 2.2. The strength or thickness shall meet the requirements of Table 3. Where cover is 2' or greater, and where load requirements can be met, polyethylene or polypropylene pipe, meeting the requirements of 2.3, may be used.

Add to Materials:

2.13 Contractor's Option. When the pipe material is not specified in the item description, pipe conforming to either 2.1 or 2.3 shall be supplied. Once selected, pipe of similar type shall be used for the entire pipe run.

Amend Table 3 to read:

Table 3 - Required Strength of Culvert Pipes

| Material | Diameter | Strength Concrete | Thickness, in. | Pipe Stiffness Plastic |
|------------------------|----------|----------------------|----------------------|---------------------------|
| | | | "Specified" Steel | |
| Reinforced Concrete | All | 2000 D | | |
| Corrugated Metal | 12"-18" | | 0.064 | |
| | 24"-30" | | 0.079 | |
| | 36" | | 0.109 | |
| Plastic | | | | Reference |
| (Polyethylene) | All | | | AASHTO M294 |
| (Polypropylene) | All | | | AASHTO M 330 |

Amend .4 under Pay Items to read:

.4 Pipe for Slope Drainage (Plastic only) Linear Foot

- B Material
- 0 Unspecified
- 1 Blank
- 2 Blank
- 3 Blank
- 4 Plastic

- C Type
- 0 Blank
- 1 Blank
- 2 Polyethylene (Type C)
- 3 Polypropylene (Type C)

Amend .8 under Pay Items to read:

.8 Plastic Pipe Linear Foot

B Materials

0 Unspecified

1 PVC

2 Polyethylene

| 3 Polypropylene |

C Type

1 Corrugated Interior (Type C)

2 Smooth Interior, Double Wall (Type S)

3 Smooth Interior, Triple Wall (Type D)

4 Blank

5 Corrugated Interior (Type C) (Watertight)

6 Smooth Interior, Double Wall (Type S) (Watertight)

7 Smooth Interior, Triple Wall (Type D) (Watertight)

8/21/17

SSD: 10/22/14, 03/02/15, 05/06/15, 04/05/17, 8/18/17

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**BEDFORD
16156**

August 29, 2017

**PROPOSED SPECIAL PROVISION
AMENDMENT TO SECTION 606 -- GUARDRAIL**

- Item 606.1254 - Beam Guardrail (Terminal Unit Type EAGRT, TL 3) (Steel Post)**
Item 606.1255 - Beam Guardrail (Terminal Unit Type EAGRT, TL 2) (Steel Post)
Item 606.12551 - Beam Guardrail (Terminal Unit Type EAGRT, TL 2 – 25') (Steel Post)

Amend 2.12.1 as follows:

2.12.1 Terminal unit EAGRT shall be an energy absorbing tangent type end unit selected from one of the following (Test Level 3 shall be a fixed-head or through-anchored-head energy absorbing tangent type end unit, no substitutions allowed):

| Terminal Name | Manufacturer and/or US Distributor | Test Level |
|----------------------|---|-------------------|
| Softstop® | Trinity Highway Products, LLC | TL 2 / TL 3 |
| MSKT | Road Systems, Inc. | TL 2/TL 3 |

2.12.1.1 The EAGRT shall be FHWA eligible and meet the MASH test level required, at a minimum.

2.12.1.2 The EAGRT designated “TL 2 – 25” shall be a FHWA eligible, MASH Test Level 2 EAGRT unit 25' in length or less.

Add to 3.3 the following:

3.3.3 The first 12.5' of the EAGRT unit is assumed gating and the length of need begins at the 3rd post. In addition, the Test Level 3 EAGRT is assumed to require a 50 foot length and the Test Level 2 EAGRT is assumed require a 37.5 foot length. If a terminal of a length other than indicated is selected, or the gating length is other than indicated, then extend or shorten the rail run to maintain the coverage of length-of-need redirective rail. Refer to the FHWA website (http://safety.fhwa.dot.gov/roadway_dept/policy_guide/road_hardware/listing.cfm?code=cushions) for the Letters of Acceptance (Eligibility) indicating the beginning of length-of-need for the terminals.

3.3.4 The EAGRT terminal unit designated “TL 2 – 25” shall only be installed in specific situations as shown on the plans or as ordered by the Engineer.

Add to 4.1:

4.1.4.1 Any additional standard rail required to maintain the coverage of the length-of-need (Section 3.3.3) for an EAGRT will not be measured.

Add to 5.1:

5.1.1.1 Any additional standard rail required to maintain the coverage of the length-of-need (Section 3.3.3) will be subsidiary to the EAGRT unit.

Revise item numbers to read:

| | | |
|-----------|--|------|
| 606.1254 | Beam Guardrail (Terminal Unit Type EAGRT, TL 3) (Steel Post) | Unit |
| 606.1255 | Beam Guardrail (Terminal Unit Type EAGRT, TL 2) (Steel Post) | Unit |
| 606.12551 | Beam Guardrail (Terminal Unit Type EAGRT, TL 2 – 25') (Steel Post) | Unit |

09/17/14

SSD: 03/17/10, 03/11/13, 02/18/14, 03/27/14

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**BEDFORD
16156**

August 29, 2017

SPECIAL PROVISION**AMENDMENT TO SECTION 606 -- GUARDRAIL**

- Item 606.18001 – 31” W-Beam Guardrail with 8” Offset Block (Steel Post)**
Item 606.18011 – 31” W-Beam Guardrail with 8” Offset Block (8’ Steel Post)
Item 606.18021 – 31” W-Beam Guardrail with 8” Offset Block (9’ Steel Post)
Item 606.18041 – 31” W-Beam Guardrail with 8” Offset Block (11’ Steel Post)
Item 606.18_ - 31” W-Beam Guardrail Long Span (_’-_)
Item 606.184 – 31” W-Beam Guardrail (Reduced Post Spacing)
Item 606.28001– 31” Double Faced W-Beam Guardrail with 8” Offset Block (Steel Post)

This special provision provides for mid-way splice guardrail. All requirements as set forth in the Standard Specifications are applicable except as modified or changed herein for these items only.

Add to Materials:

2.14 31” W-Beam Guardrail. Materials/components required for installation shall be as shown in the plans or as ordered.

2.14.1 Long Span. Refer to detail for offset block sizing.

Add to Construction Requirements:

3.9 31” W-Beam Guardrail. Construction requirements shall be as shown in the plans or as ordered.

Add to pay items and units:

| | | |
|-----------|--|-------------|
| 606.18001 | 31” W-Beam Guardrail with 8” Offset Block (Steel Post) | Linear Foot |
| 606.18011 | 31” W-Beam Guardrail with 8” Offset Block (8’ Steel Post) | Linear Foot |
| 606.18021 | 31” W-Beam Guardrail with 8” Offset Block (9’ Steel Post) | Linear Foot |
| 606.18041 | 31” W-Beam Guardrail with 8” Offset Block (11’ Steel Post) | Linear Foot |
| 606.181 | 31” W-Beam Guardrail Long Span (12’-6”) | Unit |
| 606.182 | 31” W-Beam Guardrail Long Span (18’-9”) | Unit |
| 606.183 | 31” W-Beam Guardrail Long Span (25’) | Unit |
| 606.184 | 31” W-Beam Guardrail (Reduced Post Spacing) | Linear Foot |
| 606.28001 | 31” Double Faced W-Beam Guardrail with 8” Offset Block (Steel Post) | Linear Foot |

05/22/15

SSD: 01/09/09, 08/13/09; 03/21/11

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**BEDFORD
16156**

August 29, 2017

SPECIAL PROVISION**AMENDMENT TO SECTION 606 -- GUARDRAIL**

- Item 606.31**__ – Single Faced Transition Rail, _____ Post
Item 606.32__ – Double Faced Transition Rail, _____ Post
Item 606.34__ - Asymmetrical Transition Barrier, _____ (____ Post)
Item 606.4_____ – Transition Median Concrete Barrier, _____

This special provision provides for transition rail and transition concrete barrier. All the requirements as set forth in the Standard Specifications are applicable except as modified or changed herein.

Add to Description:

1.2 The Contractor shall furnish transition rail and transition concrete barrier units detailed on the plans or herein, at the locations shown on the plans, details or ordered.

Add to 2.15:

2.15 Materials required shall meet the Material Requirement for the class or type of work in accordance with the Standard Specifications or as ordered.

Add to 3.7:

3.7.5 For areas of transitions from concrete barrier to guardrail, the Contractor shall provide the Engineer with shop drawings, in accordance with 105.02, including specific details showing connection areas.

Add to 4.1:

4.1.4 Transition rail and transition concrete barrier will be measured by the unit as shown on the plans or as ordered.

Add to 5.1:

5.1.2 The accepted quantities of transition rail and transition concrete barrier will be paid for at the contract unit price. All materials and labor will be subsidiary to the specified item, including any forming, concrete, reinforcing steel, connecting steel, and all other appurtenances.

Amend Pay Items and Units Key for this item:

606.3ABCD Transition Rail

- A Type of Rail
 - 1 Single Faced
 - 2 Double Faced
 - 3 Thrie Beam
 - 4 Asymmetrical (Single Faced)
- B Type of Post
 - 2 Steel Post (Medium weight steel (W6x8.5)
 - 4 Wood Post 6 inch x 8 inch (150 by 200 mm)
- C Transitioning To
 - Blank/0 W-Beam
 - 1 F-Shape
 - 3 Single Slope
 - 7 Other
 - 9 Modified
- D Modifiers
 - 0 Blank
 - 1 Left
 - 2 Right
 - 9 Modified

606.4ABCD Transition Concrete Barrier

- A Type of Cast
 - 1 Precast
 - 2 Cast-in-Place
 - 9 Contractor's Option
- B Type of Face
 - 1 Single Faced
 - 2 Double Faced
- C Type of Barrier
 - 1 F-Shape
 - 3 Single Slope
 - 5 54" Single Slope
 - 7 Other
 - 9 Modified
- D Type of Transition
 - 1 Tapered Transition Unit
 - 2 Tapered Transition Unit, Type I (see plans for more information)
 - 3 Tapered Transition Unit, Type II (see plans for more information)
 - 4 Tapered Transition Unit, Type III (see plans for more information)

Examples:

| | | |
|-----------|---|------|
| 606.312 | Single Faced Transition Rail, Steel Post | Unit |
| 606.3123 | Single Faced Transition Rail to Single Slope, Steel Post | Unit |
| 606.31239 | Single Faced Transition Rail to Single Slope, Steel Post (Modified) | Unit |
| 606.314 | Single Faced Transition Rail, Wood Post | Unit |
| 606.322 | Double Faced Transition Rail, Steel Post | Unit |
| 606.3223 | Double Faced Transition Rail to Thrie Beam, Steel Post | Unit |
| 606.324 | Double Faced Transition Rail, Wood Post | Unit |
| 606.3243 | Double Faced Transition Rail to Thrie Beam, Wood Post | Unit |
| 606.332 | Single Faced Thrie Beam Transition Rail, Steel Post | Unit |
| 606.33239 | Single Faced Thrie Beam Transition Rail, Steel Post (Modified) | Unit |
| 606.34201 | Single Faced Asymmetrical Transition Rail, Left (Steel Post) | Unit |
| 606.34202 | Single Faced Asymmetrical Transition Rail, Right (Steel Post) | Unit |
| 606.41211 | Transition Median Concrete Barrier, Precast | Unit |
| 606.41231 | Transition Single Slope Concrete Barrier, Precast | Unit |
| 606.41232 | Transition Single Slope Concrete Barrier, Type II | Unit |
| 606.41233 | Transition Single Slope Concrete Barrier, Type III | Unit |

06/18/12

SSD: 09/15/10, 05/24/12, 06/13/12

Page 1 of 3

**BEDFORD
16156**

August 29, 2017

SPECIAL PROVISION**AMENDMENT TO SECTION 645 -- EROSION CONTROL****Item 645.512 - Compost Sock for Perimeter Berm**

This special provision provides for compost sock for perimeter berm and neither amends nor modifies the provision of this section except as noted below. The intent of this item is to work in conjunction with or in-lieu of silt fence where entrenched silt fence its not feasible.

Description

1.1 The Contractor shall furnish and install degradable compost socks for perimeter berm at locations shown on the SWPPP plans or as ordered. Removal, if necessary, will be subsidiary to the item, and will be conducted as directed by the Engineer. The compost sock for perimeter berm shall be used as such and is not intended for areas which may receive concentrated flows such as channels or restricted outlets.

Materials**2.1 Compost Sock for Perimeter Berm.** Sock must be:

- A mesh tube, oval to round in cross section, 12 inches in diameter. Sock must have a minimum durability of one year after installation.
- Composed of a knitted biodegradable or photodegradable material with 1/8 to 3/8 inch openings. Fabric must be clean; evenly woven; free of encrusted concrete or other contaminated materials; and free from cuts, tears, broken or missing yarns and thin, open, or weak places.

2.2 Compost Media.

- Compost may be derived from green material consisting of chipped, shredded, or ground vegetation; or clean recycled wood products.
- Compost must not be derived from mixed municipal solid waste and be reasonably free of visible contaminants. Compost must not contain paint, petroleum products, pesticides or any other chemical residues harmful to animal life or plant growth. Compost must not possess objectionable odors.

2.3 Chemical, Physical and Biological Parameters.

- Compost products specified for use in this application must meet the criteria specified in Table 1, below.
- Only compost products that meet all applicable state and federal regulations pertaining to its production and distribution may be used in this application. Approved compost products must meet related state and federal chemical contaminant (e.g., heavy metals, pesticides, etc.) and pathogen limits pertaining to the feedstocks (source materials) in which it is derived.

Table 1 – Compost Media Parameters

| Parameters | Reported as (units of measure) | Characteristics |
|---|--|---|
| pH ² | pH units | 5.0 - 8.5 |
| Soluble Salt Concentration ² (electrical conductivity) | dS/m (mmhos/cm) | Maximum 5 |
| Moisture Content | %, wet weight basis | 30 – 60 |
| Organic Matter Content | %, dry weight basis | 25 – 65 |
| Particle Size | % passing a selected mesh size, dry weight basis | 3" (75 mm), 100% passing 1" (25mm), 90% to 100% passing 3/4" (19mm), 70% to 100% passing 1/4" (6.4mm), 30% to 75% passing Maximum: particle size length of 6" (152mm) (no more than 60% passing 1/4" (6.4 mm) in high rainfall/flow rate situations) |
| Stability ³ Carbon Dioxide Evolution Rate | mg CO ₂ -C per g OM per day | < 8 |
| Physical Contaminants (man-made inerts) | %, dry weight basis | < 1 |

Note: The composition of this media is similar to the vegetated filter berm media from AASHTO R 51. Very coarse (woody) composts that contain less than 30% of fine particles (1mm in size) shall be avoided, as optimum reductions in total suspended solids (TSS) is desired and berms may be seeded.

Construction Requirements

3.1 Site Preparation. To ensure optimum performance, cut down or remove heavy vegetation, and level uneven surfaces to ensure that the filter sock uniformly contacts the ground surface.

3.2 Installation.

- Prior to installation, clear the area of obstructions including rocks, clods, and debris greater than one inch
- Fill socks uniformly with compost to the desired length such that the logs do not deform. Secure ends.
- When more than one compost sock is required to achieve desired length, join socks longitudinally with a 1 foot 6 inch overlap.
- Compost sock may be installed using installation method Type 1, Type 2, or a combination:
 - Installation method Type 1:
 - Place directly on the ground with good contact with the finish grade.
 - Secure with wood stakes every 4 feet along the length of the compost sock.
 - Secure the ends of the compost sock by placing a stake 6 inches from the end of the compost sock.

- Drive the stakes into the soil so that the top of the stake is less than 2 inches above the top of the compost sock.
- Installation method Type 2:
 - Place directly on the ground with good contact with the finish grade.
 - Secure with rope and notched wood stakes.
 - Drive stakes into the soil until the notch is even with the top of the compost sock.
 - Lace the rope between stakes and over the compost sock. Knot the rope at each stake.
 - Tighten the compost sock to the surface of the slope by driving the stakes further into the soil.
- Install compost sock approximately parallel to the slope contour or as otherwise specified in the SWPPP or ordered by the Engineer.

3.3 Maintenance.

- Inspect compost socks regularly, and after each rainfall event, to ensure that they are intact and functioning correctly. Remove sediment that builds up behind the sock before it interferes with the functionality of the sock. Deposit the removed sediment within the project limits so that the sediment is not subject to erosion by wind or by water.
- Repair or replace split, torn, or unraveling socks. Replace broken or split stakes. Sagging or slumping compost socks must be repaired with additional stakes or replaced. Correct locations where rills and other evidence of concentrated runoff have occurred beneath the socks. Compost socks must be repaired or replaced within 24 hours of identifying the deficiency.
- Remove sock mesh tubes when directed by the Engineer. Cut mesh and empty sock contents in place and rake to distribute evenly.

Method of Measurement

4.1 Compost sock for perimeter berm will be paid for by the linear foot (linear meter) to the nearest 1 foot (one-half meter). Measurement will be along the top of each continuous run complete in place.

Basis of Payment

5.1 The accepted quantity of compost sock for perimeter berm will be paid for at the contract unit price per linear foot (linear meter) installed. No additional payment will be made for overlaps, splices or the anchoring of the system.

Pay items and units:

| | | |
|---------|---------------------------------|----------------------------|
| 645.512 | Compost Sock for Perimeter Berm | Linear Foot (Linear Meter) |
|---------|---------------------------------|----------------------------|

SUPPLEMENTAL SPECIFICATION

AMENDMENT TO SECTION 645 – EROSION CONTROL

*The purpose of this Supplemental Specification
is to update erosion control requirements.*

Replace 1.1 with the following:

1.1 Erosion Control Products. This work shall consist of furnishing and placing hay mulch, bark mulch, “Rolled Erosion Control Products” (RECP), or other material to provide soil stabilization and/or erosion control on slopes or in channels at locations shown on the plans or where ordered.

1.1.1 Temporary Slope Matting Type A (Not Currently Used)

1.1.2 Temporary Slope Matting Type B (Wildlife Friendly) shall be a temporary, biodegradable RECP specified for protection of slopes of 3:1 or flatter. This material may also be specified for temporary protection of channels expected to experience flow-induced shear of 1.5 lbs/ft² or less. These products shall maintain their functional integrity for a minimum of 3 months and then biodegrade.

1.1.3 Temporary Slope Matting Type C (Not Currently Used)

1.1.4 Temporary Slope Matting Type D (Wildlife Friendly) shall be shall be a temporary, biodegradable RECP specified for protection of slopes of 2:1 or flatter. This material may also be specified for temporary protection of channels expected to experience flow-induced shear of 1.75 lbs/ft² or less. These products shall maintain their functional integrity for a minimum of 12 months and then biodegrade.

1.1.5 Permanent Channel Matting Type A shall be a permanent RECP specified for protection of channels or ditches that are expected to experience flow-induced shear of 2.5 lbs/ft² or less. These products are considered to be permanent and shall be non- degradable.

1.1.6 Permanent Channel Matting Type B (Not Currently Used)

1.1.7 Temporary Channel Matting Type A shall be a long term RECP specified for protection of channels or ditches that are expected to experience flow-induced shear of 2.0 lbs/ft² or less. These products are considered temporary and shall biodegrade between 24 and 36 months.

1.1.8 Temporary Channel Matting Type B (Wildlife Friendly) shall be an extended term RECP, specified for protection of channels or ditches that are expected to experience flow-induced shear of 2.0 lbs/ft² or less. These products are considered temporary and shall biodegrade between 12 and 36 months.

Amend the Pay Items to read:

Pay items and units:

| | | |
|-------------|--|-------------|
| 645.111 | Mulch | Square Yard |
| 645.11 | Mulch | Acre |
| 645.12 | Temporary Mulch | Acre |
| 645.15 ____ | Bark Mulch ____ in. Deep | Square Yard |
| 645.3 | Erosion Stone | Ton |
| 645.42 | Temporary Slope Matting Type B (Wildlife Friendly) | Square Yard |
| 645.44 | Temporary Slope Matting Type D (Wildlife Friendly) | Square Yard |
| 645.45 | Permanent Channel Matting Type A | Square Yard |
| 645.471 | Temporary Channel Matting Type A | Square Yard |
| 645.472 | Temporary Channel Matting Type B (Wildlife Friendly) | Square Yard |
| 645.48 | Erosion Control Mix | Cubic Yard |
| 645.51 | Hay Bales for Temporary Erosion Control | Each |
| 645.52 | Ryegrass for Temporary Erosion Control | Pound |
| 645.531 | Silt Fence | Linear Foot |
| 645.532 | Silt Fence with Support Fence | Linear Foot |
| 645.7 | Storm Water Pollution Prevention Plan | Unit |
| 645.71 | Monitoring SWPPP and Erosion and Sediment Controls | Hour |

09/10/12

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Supersedes 9/18/95; 10/02/97, 09/26/03, 10/01/09

**BEDFORD
16156**

August 4, 2017

SPECIAL PROVISION**SECTION 670 -- MISCELLANEOUS INCIDENTALS****Item 670.10_ - Temporary Lighting
Item 670.10X - Temporary Portable Lighting****Description**

1.1 Work shall consist of furnishing, installing, maintaining (including power) and removing temporary stationary lighting. This includes poles, bracket arms, luminaires, photo cells, and wiring as described herein, shown on the plans, described in the Prosecution of Work or as ordered.

1.1.1 This work shall include either, the installation of a temporary metered service in accordance with the local utility standards, or providing and maintaining a power source(s) adequate for the requirements and duration of the lighting.

1.2 Work shall consist of furnishing, maintaining, relocating and the removal of temporary portable lighting provided by portable light towers as described herein, shown on the plans, described in the Prosecution of Work or as ordered.

1.2.1 This work shall include providing and maintaining a power source(s) adequate for the requirements and duration of the lighting.

Materials**2.1 Temporary Lighting.**

2.1.1 Fiberglass poles shall be direct burial with breakaway characteristics. The fiber-glass shall be constructed from ultraviolet resistant polyester resin and shall contain a minimum of 65% glass and 35% resin by weight. Poles shall be designed in accordance with the current AASHTO "*Standard Specifications for Structural Supports for Highway Signs, Luminaires and Traffic Signals*" for a 100 mph wind speed and include safety breakaway supports capable of providing the nominal light mounting height specified in 3.1.4. The pole shall be tapered and the surface shall be uniform for the entire length of the pole. Poles shall be provided with a removable aluminum top cap.

2.1.1.1 Pole shall be pigmented silver and be of uniform color throughout the entire body of the pole.

2.1.1.2 Pole shall contain a minimum 2½ in x 5 in hand hole with a non-metallic cover attached with tamper resistant hardware. The hand hole shall be located approximately 12-18 in above the ground line when installed and 90 degrees from the side intended for mounting of the arm.

2.1.1.3 Pole shall also contain a minimum 2 3/8 in diameter conductor entrance located approximately 18 in (300 mm) below grade after installation and 180 degrees from the side intended for mounting of the arm.

2.1.1.4 Pole shall be predrilled for bracket arm mounting.

2.1.1.5 A coating to provide additional ultraviolet and chemical resistance shall be applied at a minimum dry film thickness of 1½ mils. The surface shall meet the following requirements when tested for a minimum of 2500 hours of accelerated testing in accordance with ASTM 653 (UV-B Lamp 313 NM wave length 130° F, cycle lamp 4 hours on 4 hours off):

| | |
|----------------|-------------------|
| Fiber Exposure | None |
| Crazing | None |
| Checking | None |
| Chalking | None |
| Color | May dull slightly |

2.1.1.6 Poles will be rejected if the pole contains any scratches, gouges or fraying deeper than one-half the wall thickness.

2.1.2 Wood poles shall be Class IV or higher capable of providing the nominal light mounting height specified in 3.1.4.

2.1.3 The bracket arm shall be aluminum one-piece seamless, round tapered tubes conforming to ASTM B 241 Alloy 6061 T6 or 6063 T6 with a 2 in national pipe size (NPS) slip-filter.

2.1.4 Luminaires shall operate one 250-watt high-pressure sodium (HPS) lamp from a nominal 120 volt 60 hertz power source. The luminaire shall contain a pre-wired integral ballast and optical assembly that shall provide a full cutoff Type III IES distribution.

2.1.4.1 The luminaire shall contain a photoelectric control for automatic dusk to dawn operation of luminaire.

2.1.5 Temporary metered service equipment and wiring shall be in compliance with the National Electrical Code, local codes and utility requirements.

2.2 Temporary Portable Lighting.

2.2.1 Temporary portable light towers shall have a minimum tower height of 30 feet.

2.2.2 Lighting shall operate a minimum of two 250-watt lamps. Light system shall contain a ballast and shall provide an NEMA-6 beam spread.

2.2.2.1 Lights shall be full cut-off.

2.2.3 Temporary portable lighting shall contain an independent power source.

Construction Requirements

3.1 Temporary Stationary Lighting.

3.1.1 Poles placed within the clear zone and not behind barrier shall meet breakaway requirements of the aforementioned AASHTO Standard.

3.1.1.1 Poles placed behind barrier shall be located beyond the limits of barrier deflection.

3.1.2 Poles shall be buried a minimum of 20 percent of the mounting height.

3.1.3 Fiberglass poles shall be handled in accordance with manufacture's recommendations.

3.1.4 Lights shall be installed at a 35 foot mounting height on an 8 ft, 12 ft or 16 ft bracket arm as specified.

3.1.4.1 Lights shall be aimed directly down, unless otherwise specified, so as not to produce excess glare for the traveling public and to minimize the projection of light upward.

3.1.5 Temporary metered service and wiring shall be installed in accordance with the National Electrical Code, local codes and utility requirements.

3.1.5.1 The Contractor shall obtain all necessary permits for the work and meet the requirements of all codes.

3.1.6 The power source will be determined by the appropriate electric utility listed in the Prosecution of Work, if available, and the Engineer in the field.

3.2 Temporary Portable Lighting.

3.2.1 Light towers shall be placed as shown on the plans at the angle point in the concrete barrier.

3.2.1.1 Lights shall be aimed directly down, unless otherwise specified, so as not to produce excess glare for the traveling public and to minimize the projection of light upward.

3.2.2 The Contractor shall insure that temporary portable lighting is installed as part of the temporary concrete barrier installation.

3.2.3 The Contractor shall insure that temporary portable lighting is operating during night hours and not operating during daylight hours.

3.2.4 Power source shall maintain light operations for a minimum of 14 continuous hours (dusk to dawn).

3.3 If temporary lighting is proposed at locations other than as shown on the plans, the Contractor shall submit plans for approval in accordance with 105.02 prior to the start of operations.

3.4 The Contractor shall insure that temporary lighting is installed prior to disturbing traffic flow.

3.5 Temporary lighting shall be removed at the completion of the project or when no longer required.

Method of Measurement

4.1 Temporary stationary lighting and temporary portable lighting will be measured as a unit. A unit will include all work, material, equipment, hardware, required power and appurtenances as necessary for each unit required to provide temporary lighting. Relocating temporary portable lighting will not be measured.

4.2 Temporary portable lighting (unit/week) will be measured as a unit week. A week shall consist of seven consecutive days beginning from when the item is first used on the project. The number of units required each week will be specified in the Traffic Control Plan or as approved.

Basis of Payment

5.1 The accepted quantity of stationary or portable temporary lighting will be paid for at the contract lump sum price complete.

5.2 The accepted quantity of temporary portable lighting (unit/week) will be paid for at the contract unit price complete. Payment will be made based on the use for each unit, whether used once or multiple times during the week.

5.3 All costs for obtaining permits for temporary lighting will be subsidiary.

5.4 Barrier provided solely for the purpose of protecting temporary lighting shall be subsidiary to Item 619.1 – Maintenance of Traffic.

5.5 Temporary lighting provided to illuminate portable concrete barrier installed other than required on the Plans, shall be at the Contractor's expense.

Pay item and unit:

| | | |
|---------|-----------------------------|-----------|
| 670.10 | Temporary Lighting | Unit |
| 670.104 | Temporary Portable Lighting | Unit |
| 670.105 | Temporary Portable Lighting | Unit/Week |

08/28/17

SSD: 05/13/08, 09/20/07, 06/27/08, 03/03/10, 08/17/10, 02/08/11, 03/31/11, 01/15/12, 07/16/12, 01/09/14,
01/23/15, 03/03/15, 9/30/15, 12/11/15, 10/17/16, 10/17/16, 1/26/17, 02/24/17, 03/6/17

1 of 5

"

SPECIAL PROVISION

AMENDMENT TO SECTION 692 -- MOBILIZATION

Add Materials:

2.1 The Contractor shall also provide the following equipment for use by the Engineer (indicated by the checkboxes below):

| | | |
|---|---|---|
| <input type="checkbox"/> Laptop Computer: | Processor: Operating System: Memory: Hard Disk Drive: CD-ROM: Display: | Intel Core i5, Dual Core 2.4 GHz or better Microsoft Windows 10 8 GB RAM Minimum 500 GB Minimum DVD-RW/CD-RW 15.4 inches or larger, Matte/Non-reflective Finish 1600 x 900 resolution or better |
| Quantity: _____ | Video: Audio: Communication: Expansion Ports: Internet Access: | Internal web camera 512 MB Video memory or higher 16 Bit Audio with Speaker and Microphone Wireless (802.11a/b/g/n compliant adapter) Two USB 2.0/3.0 Mobile Hotspot - Coverage shall be adequate for the area required and shall be 4G compatible. Unlimited data usage and at least 128 kbps upload and 384 kbps download bandwidth. |

Software:

- Microsoft Office 2010, or newer, Professional Version
- Bluebeam Revu (current version), or other approved software, that allows user to create, markup, and edit project documents; collaborate work processes with contracting parties; and offers full integration with Microsoft Office.
- Antivirus software w/updated subscription maintained

Other Equipment:

- Power cord and charger for car and office
- Carrying case
- Optical mouse, wireless
- External USB 2.0 (or 3.0) hard drive for data backup
- Ten (10) rewriteable DVD-RW disks with protective covers
- Two (2) flash drives, 64 GB minimum each

☐ Tablet Computer:

Quantity: _____

Processor: Intel® Core 4020Y (1.5 GHz) or better
 Operating System: IOS 10 or Windows 10 (latest version)
 Memory: 4 GB RAM minimum
 Hard drive: 64 GB minimum
 Wireless: Wi-Fi 802.11ac/802.11 a/b/g/n
 Internet Access: Cellular 4G Data Service or Mobile Hotspot, unlimited usage
 Communication Ports: 1 – USB
 Screen size: 9” minimum

Software Applications:

- Microsoft Office 365 (current version)
- Bluebeam Revu (current version), or other approved software, that allows user to create, markup, and edit project documents; collaborate work processes with contracting parties; and offers full integration with Microsoft Office.
- Antivirus software w/updated subscription maintained.

Other Equipment:

- Port car or equivalent DC adapter
- Carrying case
- Bluetooth Keyboard
- Screen Protectors (minimum: 10)

☐ Printer/Photo
Copier/Scanner:

Quantity: _____

Desktop (letter and legal) size.
 Minimum of eight copies per minute.
 Minimum of 600 x 600 dpi scanner.
 Enlarging capability.
 Minimum 32 MB RAM installed.
 Microsoft Windows compatibility.
 Wireless with ability to hardwire connection to Laptop with cable.
 Computer disks with software drivers and utilities.
 Supplies including replacement Toner/Ink Cartridge(s) as required, with 1 spare on hand at all times.
 Maintenance.
 Paper with the following minimum specifications:

- 8 ½” x 11” sheets – 3 reams to be maintained
- 8 ½” x 14” cut sheets – 2 reams to be maintained#

☐ Cellular Phone:

Quantity: _____

Cellular hand set shall have a 1/3-watt nominal power output, shall have a carrying case, DC adapter (cigarette lighter operation), battery charger, hand free adapter, and owners manual. The minimum service area shall be Maine, New Hampshire, Vermont, and Massachusetts with a minimum 90% coverage area. The service plan shall have a New Hampshire calling number, a minimum service plan of 1,000 minutes per month, and unlimited texting.

☐ Smartphone:

Quantity: _____

- Memory – min. 64 MB RAM/256 MB (Accessible: 172 MB)
- Resolution/Screen – min 240x320 pixels, touch screen LCD Display, portrait & landscape display
- Software: Microsoft® Office Word Mobile, Excel® Mobile, and PowerPoint® Mobile; Adobe® Reader® LE PDF viewer, Internet Explorer Mobile, Windows Media Player, Bluetooth profile (or equivalent) enabled
- EV-DO, 1X RTT capable
- Internal flash card: min. 8GB
- Unlimited data service
- Minimum service area shall be Maine, New Hampshire, Vermont, and Massachusetts with a minimum 90% coverage area. The service plan shall have a New Hampshire calling number, a minimum service plan of 1,000 minutes per month, and unlimited texting.
- Accessories: Wall charger, car charger, screen protector, protective case, carrying case, belt attachment capability, hands-free adapter and owner's manual

☐ Digital Camera:

Digital camera with the following minimum specifications:

- Min. 8.0 Mega Pixels resolution
- Picture file storage media, compatible for uploading picture data to the computer unit and printer (min. 8 GB)
- Supports jpeg file format
- HD Video capability
- USB interface and cable
- 12-volt DC adapter and AC adapter power supply cables
- Rechargeable with backup set of batteries and charger
- Owner's manual
- Carrying case#

#

☐ Digital Paging Device:

A numeric (digital) display electronic pager. The digital paging device shall have a New Hampshire calling number and service area and service shall be available within all the geographical areas of the project.

☐ Electronic Level:

One 4 foot (1.2 meter) rail with a solid-state sensor inside a weather-resistant polycarbonate module. Sensor module to display level or plumb, rise over foot run (pitch), degree of slope, and percent slope. Rails to be aircraft grade aluminum, though bolted to solid teak centers.

☐ Marking Paint:

Adequate supply of lead free, non-clogging paint, color as ordered by the Engineer.

☐ Leveling Rod:

One telescoping fiberglass surveyor's level rod, 25 foot (7-meter).

☐ Measuring Wheel:

Steel disk, 15 inch (375 millimeter) minimum diameter with capacity to record up to 10,000 feet (3000 meters) to the tenth of a foot (meter), built-in stand, and storage case.

- ☐ MUTCD(s): The current edition of the *Manual on Uniform Traffic Control Devices for Streets and Highways* (MUTCD) and any supplements or amendments thereto, available from Superintendent of Documents, U.S. Government Printing Office, Washington D.C. 20402
- ☐ Rain Gauge: 1, constructed from a clear material, minimum ¼" permanently marked graduations, minimum 6" capacity with mounting bracket.
- ☐ Camcorder: 1, new, or used with a recently performed service check verified by an invoice, video camcorder, storage case, instruction books, extra battery with charger, lens protector, 30 GB internal hard drive, 34x optical zoom, low light capability, image stabilization, USB 2.0 interface and cable.
- ☐ Strobe Light: 1 magnetic mount, 20 watt, 12/24 Volt DC (Whelen model VP420M or equal). Unit must be able to plug into the cigarette lighter.
- ☐ Handheld Radio: 1 handheld FM radio, 5 watts programmable, VHF or UHF, a 25 kHz frequency spread, mill standard CD&E, minimum range of 10 miles (15 kilometers). Include a 1200 milliamp battery and a spare, with a drop in rapid battery charger. Radio frequency shall be compatible with the Contractors frequency, to allow communication between the Engineer and the Contractor. Maintenance shall also be included.
- ☐ Soil Acidity and Moisture Meter: Small, portable (less than 7" long), operates without power source, minimum measurement of 3.6 to 8.0 PH, with an accuracy of ± 0.2 PH, minimum measurement of 0 to 100% moisture, with an accuracy of $\pm 10\%$, instructions, carrying case, and conditioning film.
- ☐ 3 Hole Punch: Adjustable, 2 to 3 metal hole punch able to punch through a minimum of 10 sheets of standard paper at once with 9/32" holes and chip tray.
- ☐ Distance Measuring Instrument: 1 portable distance measuring instrument, accuracy 1 foot per mile (minimum), automatic calibration, built-in WAAS enabled - 66-channel GPS receiver, 4 MB memory (400,000 events - including event code identifiers, distance, time and speed), 12 volt DC, able to download data to computer via USB or Serial RS-232. Must be capable of providing GPS coordinates in the WGS 1984 coordinate system.

Add Construction Requirements

3.1 The Contractor shall maintain all furnished equipment in good working condition and shall provide replacement equipment due to breakdown, damage, or theft within two (2) working days of notice.

3.2 Upon completion of project all equipment and necessary components shall remain the property of the Contractor.

Add to Basis of Payment:

5.6 All costs of providing and maintaining the equipment will be subsidiary.

5.7 The monthly service charge, including taxes, and any activation or deactivation fee for cellular phone or mobile telephone service, including toll calls up to 1000 minutes per month, shall be paid by the Contractor and shall be subsidiary. Any call time charges, used by State personnel, above the base 1,000 minutes per month will be paid as extra work under Section 104.05.

5.8 Video cards used for documentation will become the property of the Department upon completion of the project.

**BEDFORD
16156**

August 4, 2017

SPECIAL PROVISION

SECTION 697 -- PROJECT MANAGEMENT PLANS

Item 697.11 - Invasive Species Control and Management Plan

This section is intended to provide and pay for certain Plans associated with project construction.

Description

1.1 This work shall consist of providing an Invasive Species Control and Management Plan, which includes detailing the specific method(s) of controlling the spread of the identified invasive species, and the continued monitoring and management of invasive plant species found on the site for the duration of the contract.

Construction Requirements

3.1 Develop an Invasive Species Control and Management Plan detailing specific measures to control identified invasive plant species within the project area.

3.1.1 The Invasive Species Control and Management Plan shall include updating, modifying, and revising the Plan as appropriate and/or as directed by the Contract Administrator; monitoring existing invasive plant species for the duration of the project; and taking measures to not encourage the establishment of invasive plant species within the project limits.

3.1.2 The Invasive Species Control Plan shall also consist of but not be limited to the following:

- List of plants that were identified within project limits as shown on the plans.
- Appropriate Best Management Practices that will be utilized to prevent the spread of these plants during construction.
- A proposed schedule that describes the sequence of BMPs relative to construction activities.
- If Type II plants are to be excavated, the extent of excavation needs to be noted.
- A preliminary plan showing approximate locations of any proposed disposal area within the project limits, including areas where plants will be buried or stockpiled.
- If invasive plant material or soil that contains invasive plant material will be transported, the method of transport needs to be described.
- If invasive species are to be transported off-site, when allowed, the method of transport needs to be described as well as the terminus of plant material.

- A general overview should be given of how invasive plants will be managed throughout construction, including but not limited to:
 - monitoring of newly established slopes;
 - proposed methods of eradication of any plants that appear in new areas as a result of construction activities and re-growth;
 - general BMPs such as cleaning of equipment, location of staging areas, and importation of weed-free materials, see Invasive Species Special Attention.

3.2 Invasive Species Control and Management Plan shall be submitted for approval through the Contract Administrator to the Bureau of Environment and be compliant with NHDOT's "Best Management Practices for Roadside Invasive Plants" Manual available on-line at www.nh.gov/dot/bureau/environment/documents.htm and include the continued management of invasive plants during the duration of the project.

3.3 The Contractor shall perform the work necessary to control, remove and dispose of the invasive plant species found on the site as directed and in accordance with Special Provision, Amendment to Section 201 – Clearing and Grubbing, Item 201.881 – Invasive Species Control Type I and/or Item 201.882 – Invasive Species Control Type II.

Method of Measurement

4.1 Invasive Species Control and Management Plan will be measured as a unit.

Basis of Payment

5.1 Invasive Species Control and Management Plan will be paid for at the Contract unit price.

5.1.1 No separate payment will be made for verifying the location of Invasive Species, which shall be considered subsidiary.

Pay item and unit:

| | | |
|--------|--|------|
| 697.11 | Invasive Species Control and Management Plan | Unit |
|--------|--|------|

11/01/16

SSD: 08/31/11, 08/06/12, 10/28/13

1 of 5

**BEDFORD
16156**

August 7, 2017

SPECIAL PROVISION**SECTION 697 -- PROJECT MANAGEMENT PLAN****Item 697.31 - Project Operations Plan****Description**

1.1 This work shall consist of developing a site-specific project operations plan and furnishing equipment and supplies needed to implement the plan if Limited Reuse Soils (LRS), asbestos, contaminated soil and/or groundwater, or any other contaminants or materials that may pose a risk to humans health, is expected to be encountered on a project.

Construction Requirements

3.1 General. The Contractor shall develop and submit, through the Engineer, to the Bureau of Environment, for review and approval, a Project Operations Plan (POP) based on the SA-POP and the SMP in conformance with the project requirements 15 business days prior to the start of any work involving any known (or assumed) contaminate on the project. The Bureau of Environment will review the proposed POP for compliance with state regulatory requirements, and provide comments to the Engineer. The comments on the proposed POP must be addressed by the Contractor in a revised POP. When all comments have been addressed, the Bureau of Environment will approve the POP. See the Prosecution of Work (POW) for project specific timeframes for review of submittals. **No excavation in known limited reuse soil areas or contaminated soil areas or dewatering activities in contaminated areas may take place until the POP has been approved.** The Contractor is not relieved of any responsibilities under 29 CFR 1926.65(e).

3.2 Asbestos. The POP shall describe the Contractor's plan to abate Asbestos Containing Material (ACM). The plan shall identify or provide:

- Proposed means and methods. These means and methods shall be protective of human health and the environment and conform to all applicable state and federal rules and regulations unless a waiver has been obtained.
- A list of equipment that will be used during the abatement and or associated site work disturbing ACM.
- Copies of the abatement contractors' licenses and certifications and a list of qualified personnel that will be on site and their contact information.
- Copies of all associated permits, notifications, or waivers (including any correspondence or approvals) necessary to complete the work.

- The proposed locations within the project where ACM may exist, where potential ACM is anticipated to be impacted, and proposed locations for temporary on-site storage, or stockpiles.
- Description of equipment, and personnel decontamination procedures.
- Description of access controls and site security plans (stock pile and storage locations shall be included).
- Description of best management practices (BMPs) and/or Engineering controls, as well as physical and visual controls to be deployed in or around the regulated areas and temporary storage/stockpile locations.
- Steps to inspect and maintain stockpiles until ACM is properly disposed.
- Proposed means and methods of ACM disposal and proposed licensed ACM disposal facility.

3.2.1 Department's Environmental Consultant shall be on site at all times during ACM removal to observe Contractor's work procedures for compliance with applicable regulations and the accepted POP. The Environmental Consultant may conduct aggressive environmental air monitoring of the site. Should representative air samples exceed 0.05 f/cc or visible emissions (dust, debris) observed from the ACM removal operations, work shall stop and the work methods shall be assessed and revised. Work shall not resume until Contractor submits a revised POP, addressing the revised methods, and the Department has approved these revisions.

3.2.1.1 The Contractor shall notify the Engineer at least 2 weeks prior to performing asbestos work to allow time for the Department to notify the Environmental Consultant to be on-site.

3.3 Limited Reuse Soils (LRS). The plan shall identify:

- Proposed means to keep excavation within LRS areas to a minimum
- Proposed means to segregate LRS from other soil encountered during excavation.
- The proposed locations within the project area for containers provided by the Department's Environmental Contractor for LRS.
- The means to prevent leachate, contaminated runoff and windblown impacts from containers of LRS.
- The means to secure the containers to limit public access.
- Steps to inspect and maintain containers until LRS are characterized and properly disposed.

3.3.1 Excavation, handling, on-site transportation and on-site storage of excavated LRS shall be performed in accordance with the POW, SMP and approved POP, as directed.

3.3.2 The Contractor shall notify the Engineer at least 2 weeks prior to performing LRS excavation.

3.4 Contaminated Soil and/or Groundwater. The plan shall identify:

- Proposed means to segregate clean soils from contaminated soil encountered during excavation.
- Proposed means to reduce the waste stream for excess soils that can be reused on site.
- The proposed locations within the project area for stockpiling suspected contaminated soils.
- The means to line and cap stockpiles to prevent leachate, contaminated runoff and windblown impacts from stockpiles of contaminated soils and waste materials.
- The means to secure the stockpile area to limit public access.
- Steps to inspect and maintain stockpiles until materials are characterized and properly disposed and/or reused.

3.4.1 Department's Environmental Consultant shall be on site at all times during contaminated soil/groundwater removal to observe Contractor's work procedures for compliance with applicable regulations and the approved POP.

3.4.2 The POP shall also identify the Contractor's approach to dewater, if groundwater is encountered in areas of identified contamination. The plan shall identify the temporary storage location for water pumped during various phases of the work and the proposed treatment or the disposal location for contaminated groundwater and the proposed means to manage water that has been pumped to a frac tank, or other means of containment, and later found to be acceptable for onsite discharge as "clean" water.

3.4.3 The Contractor, when ordered by the Engineer, will be required to treat contaminated groundwater onsite prior to discharge of the treated water. The Contractor will be responsible for obtaining all necessary permits and approvals for discharging the contaminated groundwater. Potential options to manage the contaminated water include: discharge to municipal sanitary sewer with permission of the municipality under a NHDES Discharge Permit Request; discharge to the ground or groundwater under a NHDES Temporary Groundwater Discharge Permit; disposal as a contaminated water at an appropriate treatment/disposal facility in accordance with all applicable federal, state, and local rules and regulations; or discharge to surface water under the United States Environmental Protection Agency (USEPA) Remediation General Permit (RGP). The POP shall identify the Contractor's proposed standby method for treating contaminated groundwater and discharge of the effluent. The Contractor may assume that the Department's Environmental Consultant will perform sampling and analysis to monitor compliance with the required discharge permit.

3.4.4 Excavation, handling, on-site transportation and on-site stockpiling of excavated materials shall be performed in accordance with the approved POP, as directed.

3.5 Other types of Contaminates/Materials. If other types of known contaminants/materials are identified in the Prosecution of Work, the POP shall also identify the proposed means and methods to abate/segregate/contain the "material" per industry standards.

3.6 Health and safety precautions shall conform to industry standards, including, but not limited to, Department of Labor and OSHA rules and regulations.

3.7 The Contractor shall maintain all furnished equipment and supplies in good working condition and shall provide replacements due to breakdown, damage, usage, or theft within two (2) working days of notice.

3.7.1 Upon completion of project all equipment and supplies shall remain the property of the Contractor.

3.8 Personnel training shall be in accordance with 29 CFR 1926.65(e) for all personnel conducting, supervising, or managing field work. Cost for training shall be the responsibility of the Contractor.

3.9 Should the project have more than one known type of contaminate/material, the Contractor shall identify all means and methods for abatement/segregation/containment/treatment/disposal, as necessary, for all contaminants/materials in one plan for review and approval.

Method of Measurement

4.1 The Project Operations Plan will be measured as unit. A unit shall include any equipment/supplies that are a requirement of the prepared Project Operations Plan, unless specifically stated under other items.

4.1.1 No separate measurement shall be made for replacement equipment/supplies required under 3.1, unless specifically stated under other items.

4.1.2 No separate measurement will be made for multiple “contaminates/materials” plans.

Basis of Payment

5.1 The Project Operations Plan will be paid for at the Item Bid Price per unit.

5.1.1 No separate payment will be made for replacement equipment/supplies or replacement equipment/supplies required under 3.6 unless specifically stated under other items.

5.1.3 Segregating, handling, on-site transportation and on-site stockpiling of excavated materials will be paid under the appropriate 203 Item(s).

5.1.4 Excavation, handling, on-site transportation; on-site stockpiling of excavated ACM (soils) will be paid under Item 203.354 – Excavating and Handling Asbestos Contaminated Soils.

5.1.5 Treatment and disposal of contaminated groundwater will be paid under Item 1009.21 - Treatment and Disposal of Contaminated Groundwater (Frac Tank).

5.1.6 Off-site transportation and disposal of ACM (soils) will be paid for under Item 1009.323

Pay item and unit:

697.31

Project Operations Plan

Unit

August 29, 2017

SPECIAL PROVISION**SECTION 1002 -- SPECIAL WORK ON STRUCTURES****Item 1002.1_- Repairs or Replacements as Needed – Bridge Structures****Description**

1.1 This section is intended to provide and pay for certain measures which may be required, during construction, to rehabilitate existing bridge structures where work by the Contractor has revealed work necessary which could not be examined and foreseen prior to the construction period. Engineering judgment indicates that a reasonable estimated dollar allowance is in order in setting up the contract.

Materials

2.1 Materials required shall meet the Material Requirements for the class or type of work in accordance with the Standard Specifications or as ordered.

Construction Requirements

3.1 The Contractor shall perform all necessary work to relocate, adjust, reconstruct structures or construct items in accordance with the respective classes of work required.

3.2 Damage due to negligence or careless operation shall be repaired at no extra cost to the Department.

Method of Measurement

4.1 Work authorized under this section will be measured as provided in 109.01; however when such work falls within the specifications for another contract item, the work will be measured according to the method of measurement for that contract item.

Basis of Payment

5.1 Payment for work authorized under this section will be made on a dollar basis according to 109.04. The dollar limit set in the proposal will not limit the Engineer in the value of work performed under this item.

5.1.1 Payment of the amount set in the proposal will not be on a lump sum basis, but only the amount determined for the value of the work ordered will be paid.

5.1.2 Repair work to damaged or injured portions of a structure made necessary due to the negligence or carelessness of the Contractor will not be paid for.

5.2 The Bidder's attention is called to the price inserted in the proposal under these items, which price is the allowance the department has set up for the special work. This figure must not be altered by the Bidder on the proposal, and must be included to obtain the grand total of the bid.

Pay item and unit:

| | | |
|---------|---|--------|
| 1002.1_ | Repairs or Replacements as Needed – Bridge Structures | Dollar |
|---------|---|--------|

REQUIRED CONTRACT PROVISIONS FEDERAL-AID CONSTRUCTION CONTRACTS

- I. General
- II. Nondiscrimination
- III. Nonsegregated Facilities
- IV. Davis-Bacon and Related Act Provisions
- V. Contract Work Hours and Safety Standards Act Provisions
- VI. Subletting or Assigning the Contract
- VII. Safety: Accident Prevention
- VIII. False Statements Concerning Highway Projects
- IX. Implementation of Clean Air Act and Federal Water Pollution Control Act
- X. Compliance with Governmentwide Suspension and Debarment Requirements
- XI. Certification Regarding Use of Contract Funds for Lobbying

ATTACHMENTS

A. Employment and Materials Preference for Appalachian Development Highway System or Appalachian Local Access Road Contracts (included in Appalachian contracts only)

I. GENERAL

1. Form FHWA-1273 must be physically incorporated in each construction contract funded under Title 23 (excluding emergency contracts solely intended for debris removal). The contractor (or subcontractor) must insert this form in each subcontract and further require its inclusion in all lower tier subcontracts (excluding purchase orders, rental agreements and other agreements for supplies or services).

The applicable requirements of Form FHWA-1273 are incorporated by reference for work done under any purchase order, rental agreement or agreement for other services. The prime contractor shall be responsible for compliance by any subcontractor, lower-tier subcontractor or service provider.

Form FHWA-1273 must be included in all Federal-aid design-build contracts, in all subcontracts and in lower tier subcontracts (excluding subcontracts for design services, purchase orders, rental agreements and other agreements for supplies or services). The design-builder shall be responsible for compliance by any subcontractor, lower-tier subcontractor or service provider.

Contracting agencies may reference Form FHWA-1273 in bid proposal or request for proposal documents, however, the Form FHWA-1273 must be physically incorporated (not referenced) in all contracts, subcontracts and lower-tier subcontracts (excluding purchase orders, rental agreements and other agreements for supplies or services related to a construction contract).

2. Subject to the applicability criteria noted in the following sections, these contract provisions shall apply to all work performed on the contract by the contractor's own organization and with the assistance of workers under the contractor's immediate superintendence and to all work performed on the contract by piecework, station work, or by subcontract.

3. A breach of any of the stipulations contained in these Required Contract Provisions may be sufficient grounds for withholding of progress payments, withholding of final payment, termination of the contract, suspension / debarment or any other action determined to be appropriate by the contracting agency and FHWA.

4. Selection of Labor: During the performance of this contract, the contractor shall not use convict labor for any purpose within the limits of a construction project on a Federal-aid highway unless it is labor performed by convicts who are on parole, supervised release, or probation. The term Federal-aid highway does not include roadways functionally classified as local roads or rural minor collectors.

II. NONDISCRIMINATION

The provisions of this section related to 23 CFR Part 230 are applicable to all Federal-aid construction contracts and to all related construction subcontracts of \$10,000 or more. The provisions of 23 CFR Part 230 are not applicable to material supply, engineering, or architectural service contracts.

In addition, the contractor and all subcontractors must comply with the following policies: Executive Order 11246, 41 CFR 60, 29 CFR 1625-1627, Title 23 USC Section 140, the Rehabilitation Act of 1973, as amended (29 USC 794), Title VI of the Civil Rights Act of 1964, as amended, and related regulations including 49 CFR Parts 21, 26 and 27; and 23 CFR Parts 200, 230, and 633.

The contractor and all subcontractors must comply with: the requirements of the Equal Opportunity Clause in 41 CFR 60-1.4(b) and, for all construction contracts exceeding \$10,000, the Standard Federal Equal Employment Opportunity Construction Contract Specifications in 41 CFR 60-4.3.

Note: The U.S. Department of Labor has exclusive authority to determine compliance with Executive Order 11246 and the policies of the Secretary of Labor including 41 CFR 60, and 29 CFR 1625-1627. The contracting agency and the FHWA have the authority and the responsibility to ensure compliance with Title 23 USC Section 140, the Rehabilitation Act of 1973, as amended (29 USC 794), and Title VI of the Civil Rights Act of 1964, as amended, and related regulations including 49 CFR Parts 21, 26 and 27; and 23 CFR Parts 200, 230, and 633.

The following provision is adopted from 23 CFR 230, Appendix A, with appropriate revisions to conform to the U.S. Department of Labor (US DOL) and FHWA requirements.

1. Equal Employment Opportunity: Equal employment opportunity (EEO) requirements not to discriminate and to take affirmative action to assure equal opportunity as set forth under laws, executive orders, rules, regulations (28 CFR 35, 29 CFR 1630, 29 CFR 1625-1627, 41 CFR 60 and 49 CFR 27) and orders of the Secretary of Labor as modified by the provisions prescribed herein, and imposed pursuant to 23 U.S.C. 140 shall constitute the EEO and specific affirmative action standards for the contractor's project activities under

this contract. The provisions of the Americans with Disabilities Act of 1990 (42 U.S.C. 12101 et seq.) set forth under 28 CFR 35 and 29 CFR 1630 are incorporated by reference in this contract. In the execution of this contract, the contractor agrees to comply with the following minimum specific requirement activities of EEO:

a. The contractor will work with the contracting agency and the Federal Government to ensure that it has made every good faith effort to provide equal opportunity with respect to all of its terms and conditions of employment and in their review of activities under the contract.

b. The contractor will accept as its operating policy the following statement:

"It is the policy of this Company to assure that applicants are employed, and that employees are treated during employment, without regard to their race, religion, sex, color, national origin, age or disability. Such action shall include: employment, upgrading, demotion, or transfer; recruitment or recruitment advertising; layoff or termination; rates of pay or other forms of compensation; and selection for training, including apprenticeship, pre-apprenticeship, and/or on-the-job training."

2. EEO Officer: The contractor will designate and make known to the contracting officers an EEO Officer who will have the responsibility for and must be capable of effectively administering and promoting an active EEO program and who must be assigned adequate authority and responsibility to do so.

3. Dissemination of Policy: All members of the contractor's staff who are authorized to hire, supervise, promote, and discharge employees, or who recommend such action, or who are substantially involved in such action, will be made fully cognizant of, and will implement, the contractor's EEO policy and contractual responsibilities to provide EEO in each grade and classification of employment. To ensure that the above agreement will be met, the following actions will be taken as a minimum:

a. Periodic meetings of supervisory and personnel office employees will be conducted before the start of work and then not less often than once every six months, at which time the contractor's EEO policy and its implementation will be reviewed and explained. The meetings will be conducted by the EEO Officer.

b. All new supervisory or personnel office employees will be given a thorough indoctrination by the EEO Officer, covering all major aspects of the contractor's EEO obligations within thirty days following their reporting for duty with the contractor.

c. All personnel who are engaged in direct recruitment for the project will be instructed by the EEO Officer in the contractor's procedures for locating and hiring minorities and women.

d. Notices and posters setting forth the contractor's EEO policy will be placed in areas readily accessible to employees, applicants for employment and potential employees.

e. The contractor's EEO policy and the procedures to implement such policy will be brought to the attention of employees by means of meetings, employee handbooks, or other appropriate means.

4. Recruitment: When advertising for employees, the contractor will include in all advertisements for employees the notation: "An Equal Opportunity Employer." All such advertisements will be placed in publications having a large circulation among minorities and women in the area from which the project work force would normally be derived.

a. The contractor will, unless precluded by a valid bargaining agreement, conduct systematic and direct recruitment through public and private employee referral sources likely to yield qualified minorities and women. To meet this requirement, the contractor will identify sources of potential minority group employees, and establish with such identified sources procedures whereby minority and women applicants may be referred to the contractor for employment consideration.

b. In the event the contractor has a valid bargaining agreement providing for exclusive hiring hall referrals, the contractor is expected to observe the provisions of that agreement to the extent that the system meets the contractor's compliance with EEO contract provisions. Where implementation of such an agreement has the effect of discriminating against minorities or women, or obligates the contractor to do the same, such implementation violates Federal nondiscrimination provisions.

c. The contractor will encourage its present employees to refer minorities and women as applicants for employment. Information and procedures with regard to referring such applicants will be discussed with employees.

5. Personnel Actions: Wages, working conditions, and employee benefits shall be established and administered, and personnel actions of every type, including hiring, upgrading, promotion, transfer, demotion, layoff, and termination, shall be taken without regard to race, color, religion, sex, national origin, age or disability. The following procedures shall be followed:

a. The contractor will conduct periodic inspections of project sites to insure that working conditions and employee facilities do not indicate discriminatory treatment of project site personnel.

b. The contractor will periodically evaluate the spread of wages paid within each classification to determine any evidence of discriminatory wage practices.

c. The contractor will periodically review selected personnel actions in depth to determine whether there is evidence of discrimination. Where evidence is found, the contractor will promptly take corrective action. If the review indicates that the discrimination may extend beyond the actions reviewed, such corrective action shall include all affected persons.

d. The contractor will promptly investigate all complaints of alleged discrimination made to the contractor in connection with its obligations under this contract, will attempt to resolve such complaints, and will take appropriate corrective action within a reasonable time. If the investigation indicates that the discrimination may affect persons other than the complainant, such corrective action shall include such other persons. Upon completion of each investigation, the contractor will inform every complainant of all of their avenues of appeal.

6. Training and Promotion:

a. The contractor will assist in locating, qualifying, and increasing the skills of minorities and women who are

applicants for employment or current employees. Such efforts should be aimed at developing full journey level status employees in the type of trade or job classification involved.

b. Consistent with the contractor's work force requirements and as permissible under Federal and State regulations, the contractor shall make full use of training programs, i.e., apprenticeship, and on-the-job training programs for the geographical area of contract performance. In the event a special provision for training is provided under this contract, this subparagraph will be superseded as indicated in the special provision. The contracting agency may reserve training positions for persons who receive welfare assistance in accordance with 23 U.S.C. 140(a).

c. The contractor will advise employees and applicants for employment of available training programs and entrance requirements for each.

d. The contractor will periodically review the training and promotion potential of employees who are minorities and women and will encourage eligible employees to apply for such training and promotion.

7. Unions: If the contractor relies in whole or in part upon unions as a source of employees, the contractor will use good faith efforts to obtain the cooperation of such unions to increase opportunities for minorities and women. Actions by the contractor, either directly or through a contractor's association acting as agent, will include the procedures set forth below:

a. The contractor will use good faith efforts to develop, in cooperation with the unions, joint training programs aimed toward qualifying more minorities and women for membership in the unions and increasing the skills of minorities and women so that they may qualify for higher paying employment.

b. The contractor will use good faith efforts to incorporate an EEO clause into each union agreement to the end that such union will be contractually bound to refer applicants without regard to their race, color, religion, sex, national origin, age or disability.

c. The contractor is to obtain information as to the referral practices and policies of the labor union except that to the extent such information is within the exclusive possession of the labor union and such labor union refuses to furnish such information to the contractor, the contractor shall so certify to the contracting agency and shall set forth what efforts have been made to obtain such information.

d. In the event the union is unable to provide the contractor with a reasonable flow of referrals within the time limit set forth in the collective bargaining agreement, the contractor will, through independent recruitment efforts, fill the employment vacancies without regard to race, color, religion, sex, national origin, age or disability; making full efforts to obtain qualified and/or qualifiable minorities and women. The failure of a union to provide sufficient referrals (even though it is obligated to provide exclusive referrals under the terms of a collective bargaining agreement) does not relieve the contractor from the requirements of this paragraph. In the event the union referral practice prevents the contractor from meeting the obligations pursuant to Executive Order 11246, as amended, and these special provisions, such contractor shall immediately notify the contracting agency.

8. Reasonable Accommodation for Applicants / Employees with Disabilities: The contractor must be familiar

with the requirements for and comply with the Americans with Disabilities Act and all rules and regulations established there under. Employers must provide reasonable accommodation in all employment activities unless to do so would cause an undue hardship.

9. Selection of Subcontractors, Procurement of Materials and Leasing of Equipment: The contractor shall not discriminate on the grounds of race, color, religion, sex, national origin, age or disability in the selection and retention of subcontractors, including procurement of materials and leases of equipment. The contractor shall take all necessary and reasonable steps to ensure nondiscrimination in the administration of this contract.

a. The contractor shall notify all potential subcontractors and suppliers and lessors of their EEO obligations under this contract.

b. The contractor will use good faith efforts to ensure subcontractor compliance with their EEO obligations.

10. Assurance Required by 49 CFR 26.13(b):

a. The requirements of 49 CFR Part 26 and the State DOT's U.S. DOT-approved DBE program are incorporated by reference.

b. The contractor or subcontractor shall not discriminate on the basis of race, color, national origin, or sex in the performance of this contract. The contractor shall carry out applicable requirements of 49 CFR Part 26 in the award and administration of DOT-assisted contracts. Failure by the contractor to carry out these requirements is a material breach of this contract, which may result in the termination of this contract or such other remedy as the contracting agency deems appropriate.

11. Records and Reports: The contractor shall keep such records as necessary to document compliance with the EEO requirements. Such records shall be retained for a period of three years following the date of the final payment to the contractor for all contract work and shall be available at reasonable times and places for inspection by authorized representatives of the contracting agency and the FHWA.

a. The records kept by the contractor shall document the following:

(1) The number and work hours of minority and non-minority group members and women employed in each work classification on the project;

(2) The progress and efforts being made in cooperation with unions, when applicable, to increase employment opportunities for minorities and women; and

(3) The progress and efforts being made in locating, hiring, training, qualifying, and upgrading minorities and women;

b. The contractors and subcontractors will submit an annual report to the contracting agency each July for the duration of the project, indicating the number of minority, women, and non-minority group employees currently engaged in each work classification required by the contract work. This information is to be reported on [Form FHWA-1391](#). The staffing data should represent the project work force on board in all or any part of the last payroll period preceding the end of July. If on-the-job training is being required by special provision, the contractor

will be required to collect and report training data. The employment data should reflect the work force on board during all or any part of the last payroll period preceding the end of July.

III. NONSEGREGATED FACILITIES

This provision is applicable to all Federal-aid construction contracts and to all related construction subcontracts of \$10,000 or more.

The contractor must ensure that facilities provided for employees are provided in such a manner that segregation on the basis of race, color, religion, sex, or national origin cannot result. The contractor may neither require such segregated use by written or oral policies nor tolerate such use by employee custom. The contractor's obligation extends further to ensure that its employees are not assigned to perform their services at any location, under the contractor's control, where the facilities are segregated. The term "facilities" includes waiting rooms, work areas, restaurants and other eating areas, time clocks, restrooms, washrooms, locker rooms, and other storage or dressing areas, parking lots, drinking fountains, recreation or entertainment areas, transportation, and housing provided for employees. The contractor shall provide separate or single-user restrooms and necessary dressing or sleeping areas to assure privacy between sexes.

IV. DAVIS-BACON AND RELATED ACT PROVISIONS

This section is applicable to all Federal-aid construction projects exceeding \$2,000 and to all related subcontracts and lower-tier subcontracts (regardless of subcontract size). The requirements apply to all projects located within the right-of-way of a roadway that is functionally classified as Federal-aid highway. This excludes roadways functionally classified as local roads or rural minor collectors, which are exempt. Contracting agencies may elect to apply these requirements to other projects.

The following provisions are from the U.S. Department of Labor regulations in 29 CFR 5.5 "Contract provisions and related matters" with minor revisions to conform to the FHWA-1273 format and FHWA program requirements.

1. Minimum wages

a. All laborers and mechanics employed or working upon the site of the work, will be paid unconditionally and not less often than once a week, and without subsequent deduction or rebate on any account (except such payroll deductions as are permitted by regulations issued by the Secretary of Labor under the Copeland Act (29 CFR part 3)), the full amount of wages and bona fide fringe benefits (or cash equivalents thereof) due at time of payment computed at rates not less than those contained in the wage determination of the Secretary of Labor which is attached hereto and made a part hereof, regardless of any contractual relationship which may be alleged to exist between the contractor and such laborers and mechanics.

Contributions made or costs reasonably anticipated for bona fide fringe benefits under section 1(b)(2) of the Davis-Bacon Act on behalf of laborers or mechanics are considered wages paid to such laborers or mechanics, subject to the provisions

of paragraph 1.d. of this section; also, regular contributions made or costs incurred for more than a weekly period (but not less often than quarterly) under plans, funds, or programs which cover the particular weekly period, are deemed to be constructively made or incurred during such weekly period. Such laborers and mechanics shall be paid the appropriate wage rate and fringe benefits on the wage determination for the classification of work actually performed, without regard to skill, except as provided in 29 CFR 5.5(a)(4). Laborers or mechanics performing work in more than one classification may be compensated at the rate specified for each classification for the time actually worked therein: Provided, That the employer's payroll records accurately set forth the time spent in each classification in which work is performed. The wage determination (including any additional classification and wage rates conformed under paragraph 1.b. of this section) and the Davis-Bacon poster (WH-1321) shall be posted at all times by the contractor and its subcontractors at the site of the work in a prominent and accessible place where it can be easily seen by the workers.

b. (1) The contracting officer shall require that any class of laborers or mechanics, including helpers, which is not listed in the wage determination and which is to be employed under the contract shall be classified in conformance with the wage determination. The contracting officer shall approve an additional classification and wage rate and fringe benefits therefore only when the following criteria have been met:

(i) The work to be performed by the classification requested is not performed by a classification in the wage determination; and

(ii) The classification is utilized in the area by the construction industry; and

(iii) The proposed wage rate, including any bona fide fringe benefits, bears a reasonable relationship to the wage rates contained in the wage determination.

(2) If the contractor and the laborers and mechanics to be employed in the classification (if known), or their representatives, and the contracting officer agree on the classification and wage rate (including the amount designated for fringe benefits where appropriate), a report of the action taken shall be sent by the contracting officer to the Administrator of the Wage and Hour Division, Employment Standards Administration, U.S. Department of Labor, Washington, DC 20210. The Administrator, or an authorized representative, will approve, modify, or disapprove every additional classification action within 30 days of receipt and so advise the contracting officer or will notify the contracting officer within the 30-day period that additional time is necessary.

(3) In the event the contractor, the laborers or mechanics to be employed in the classification or their representatives, and the contracting officer do not agree on the proposed classification and wage rate (including the amount designated for fringe benefits, where appropriate), the contracting officer shall refer the questions, including the views of all interested parties and the recommendation of the contracting officer, to the Wage and Hour Administrator for determination. The Wage and Hour Administrator, or an authorized representative, will issue a determination within 30 days of receipt and so advise the contracting officer or

will notify the contracting officer within the 30-day period that additional time is necessary.

(4) The wage rate (including fringe benefits where appropriate) determined pursuant to paragraphs 1.b.(2) or 1.b.(3) of this section, shall be paid to all workers performing work in the classification under this contract from the first day on which work is performed in the classification.

c. Whenever the minimum wage rate prescribed in the contract for a class of laborers or mechanics includes a fringe benefit which is not expressed as an hourly rate, the contractor shall either pay the benefit as stated in the wage determination or shall pay another bona fide fringe benefit or an hourly cash equivalent thereof.

d. If the contractor does not make payments to a trustee or other third person, the contractor may consider as part of the wages of any laborer or mechanic the amount of any costs reasonably anticipated in providing bona fide fringe benefits under a plan or program. Provided, That the Secretary of Labor has found, upon the written request of the contractor, that the applicable standards of the Davis-Bacon Act have been met. The Secretary of Labor may require the contractor to set aside in a separate account assets for the meeting of obligations under the plan or program.

2. Withholding

The contracting agency shall upon its own action or upon written request of an authorized representative of the Department of Labor, withhold or cause to be withheld from the contractor under this contract, or any other Federal contract with the same prime contractor, or any other federally-assisted contract subject to Davis-Bacon prevailing wage requirements, which is held by the same prime contractor, so much of the accrued payments or advances as may be considered necessary to pay laborers and mechanics, including apprentices, trainees, and helpers, employed by the contractor or any subcontractor the full amount of wages required by the contract. In the event of failure to pay any laborer or mechanic, including any apprentice, trainee, or helper, employed or working on the site of the work, all or part of the wages required by the contract, the contracting agency may, after written notice to the contractor, take such action as may be necessary to cause the suspension of any further payment, advance, or guarantee of funds until such violations have ceased.

3. Payrolls and basic records

a. Payrolls and basic records relating thereto shall be maintained by the contractor during the course of the work and preserved for a period of three years thereafter for all laborers and mechanics working at the site of the work. Such records shall contain the name, address, and social security number of each such worker, his or her correct classification, hourly rates of wages paid (including rates of contributions or costs anticipated for bona fide fringe benefits or cash equivalents thereof of the types described in section 1(b)(2)(B) of the Davis-Bacon Act), daily and weekly number of hours worked, deductions made and actual wages paid. Whenever the Secretary of Labor has found under 29 CFR 5.5(a)(1)(iv) that the wages of any laborer or mechanic include the amount of any costs reasonably anticipated in providing benefits under a plan or program described in section 1(b)(2)(B) of the Davis-

Bacon Act, the contractor shall maintain records which show that the commitment to provide such benefits is enforceable, that the plan or program is financially responsible, and that the plan or program has been communicated in writing to the laborers or mechanics affected, and records which show the costs anticipated or the actual cost incurred in providing such benefits. Contractors employing apprentices or trainees under approved programs shall maintain written evidence of the registration of apprenticeship programs and certification of trainee programs, the registration of the apprentices and trainees, and the ratios and wage rates prescribed in the applicable programs.

b. (1) The contractor shall submit weekly for each week in which any contract work is performed a copy of all payrolls to the contracting agency. The payrolls submitted shall set out accurately and completely all of the information required to be maintained under 29 CFR 5.5(a)(3)(i), except that full social security numbers and home addresses shall not be included on weekly transmittals. Instead the payrolls shall only need to include an individually identifying number for each employee (e.g., the last four digits of the employee's social security number). The required weekly payroll information may be submitted in any form desired. Optional Form WH-347 is available for this purpose from the Wage and Hour Division Web site at <http://www.dol.gov/esa/whd/forms/wh347instr.htm> or its successor site. The prime contractor is responsible for the submission of copies of payrolls by all subcontractors. Contractors and subcontractors shall maintain the full social security number and current address of each covered worker, and shall provide them upon request to the contracting agency for transmission to the State DOT, the FHWA or the Wage and Hour Division of the Department of Labor for purposes of an investigation or audit of compliance with prevailing wage requirements. It is not a violation of this section for a prime contractor to require a subcontractor to provide addresses and social security numbers to the prime contractor for its own records, without weekly submission to the contracting agency..

(2) Each payroll submitted shall be accompanied by a "Statement of Compliance," signed by the contractor or subcontractor or his or her agent who pays or supervises the payment of the persons employed under the contract and shall certify the following:

(i) That the payroll for the payroll period contains the information required to be provided under §5.5 (a)(3)(ii) of Regulations, 29 CFR part 5, the appropriate information is being maintained under §5.5 (a)(3)(i) of Regulations, 29 CFR part 5, and that such information is correct and complete;

(ii) That each laborer or mechanic (including each helper, apprentice, and trainee) employed on the contract during the payroll period has been paid the full weekly wages earned, without rebate, either directly or indirectly, and that no deductions have been made either directly or indirectly from the full wages earned, other than permissible deductions as set forth in Regulations, 29 CFR part 3;

(iii) That each laborer or mechanic has been paid not less than the applicable wage rates and fringe benefits or cash equivalents for the classification of work performed, as specified in the applicable wage determination incorporated into the contract.

(3) The weekly submission of a properly executed certification set forth on the reverse side of Optional Form WH-347 shall satisfy the requirement for submission of the "Statement of Compliance" required by paragraph 3.b.(2) of this section.

(4) The falsification of any of the above certifications may subject the contractor or subcontractor to civil or criminal prosecution under section 1001 of title 18 and section 231 of title 31 of the United States Code.

c. The contractor or subcontractor shall make the records required under paragraph 3.a. of this section available for inspection, copying, or transcription by authorized representatives of the contracting agency, the State DOT, the FHWA, or the Department of Labor, and shall permit such representatives to interview employees during working hours on the job. If the contractor or subcontractor fails to submit the required records or to make them available, the FHWA may, after written notice to the contractor, the contracting agency or the State DOT, take such action as may be necessary to cause the suspension of any further payment, advance, or guarantee of funds. Furthermore, failure to submit the required records upon request or to make such records available may be grounds for debarment action pursuant to 29 CFR 5.12.

4. Apprentices and trainees

a. Apprentices (programs of the USDOL).

Apprentices will be permitted to work at less than the predetermined rate for the work they performed when they are employed pursuant to and individually registered in a bona fide apprenticeship program registered with the U.S. Department of Labor, Employment and Training Administration, Office of Apprenticeship Training, Employer and Labor Services, or with a State Apprenticeship Agency recognized by the Office, or if a person is employed in his or her first 90 days of probationary employment as an apprentice in such an apprenticeship program, who is not individually registered in the program, but who has been certified by the Office of Apprenticeship Training, Employer and Labor Services or a State Apprenticeship Agency (where appropriate) to be eligible for probationary employment as an apprentice.

The allowable ratio of apprentices to journeymen on the job site in any craft classification shall not be greater than the ratio permitted to the contractor as to the entire work force under the registered program. Any worker listed on a payroll at an apprentice wage rate, who is not registered or otherwise employed as stated above, shall be paid not less than the applicable wage rate on the wage determination for the classification of work actually performed. In addition, any apprentice performing work on the job site in excess of the ratio permitted under the registered program shall be paid not less than the applicable wage rate on the wage determination for the work actually performed. Where a contractor is performing construction on a project in a locality other than that in which its program is registered, the ratios and wage rates (expressed in percentages of the journeyman's hourly rate) specified in the contractor's or subcontractor's registered program shall be observed.

Every apprentice must be paid at not less than the rate specified in the registered program for the apprentice's level of progress, expressed as a percentage of the journeymen hourly

rate specified in the applicable wage determination. Apprentices shall be paid fringe benefits in accordance with the provisions of the apprenticeship program. If the apprenticeship program does not specify fringe benefits, apprentices must be paid the full amount of fringe benefits listed on the wage determination for the applicable classification. If the Administrator determines that a different practice prevails for the applicable apprentice classification, fringes shall be paid in accordance with that determination.

In the event the Office of Apprenticeship Training, Employer and Labor Services, or a State Apprenticeship Agency recognized by the Office, withdraws approval of an apprenticeship program, the contractor will no longer be permitted to utilize apprentices at less than the applicable predetermined rate for the work performed until an acceptable program is approved.

b. Trainees (programs of the USDOL).

Except as provided in 29 CFR 5.16, trainees will not be permitted to work at less than the predetermined rate for the work performed unless they are employed pursuant to and individually registered in a program which has received prior approval, evidenced by formal certification by the U.S. Department of Labor, Employment and Training Administration.

The ratio of trainees to journeymen on the job site shall not be greater than permitted under the plan approved by the Employment and Training Administration.

Every trainee must be paid at not less than the rate specified in the approved program for the trainee's level of progress, expressed as a percentage of the journeyman hourly rate specified in the applicable wage determination. Trainees shall be paid fringe benefits in accordance with the provisions of the trainee program. If the trainee program does not mention fringe benefits, trainees shall be paid the full amount of fringe benefits listed on the wage determination unless the Administrator of the Wage and Hour Division determines that there is an apprenticeship program associated with the corresponding journeyman wage rate on the wage determination which provides for less than full fringe benefits for apprentices. Any employee listed on the payroll at a trainee rate who is not registered and participating in a training plan approved by the Employment and Training Administration shall be paid not less than the applicable wage rate on the wage determination for the classification of work actually performed. In addition, any trainee performing work on the job site in excess of the ratio permitted under the registered program shall be paid not less than the applicable wage rate on the wage determination for the work actually performed.

In the event the Employment and Training Administration withdraws approval of a training program, the contractor will no longer be permitted to utilize trainees at less than the applicable predetermined rate for the work performed until an acceptable program is approved.

c. Equal employment opportunity. The utilization of apprentices, trainees and journeymen under this part shall be in conformity with the equal employment opportunity requirements of Executive Order 11246, as amended, and 29 CFR part 30.

d. Apprentices and Trainees (programs of the U.S. DOT).

Apprentices and trainees working under apprenticeship and skill training programs which have been certified by the Secretary of Transportation as promoting EEO in connection with Federal-aid highway construction programs are not subject to the requirements of paragraph 4 of this Section IV. The straight time hourly wage rates for apprentices and trainees under such programs will be established by the particular programs. The ratio of apprentices and trainees to journeymen shall not be greater than permitted by the terms of the particular program.

5. Compliance with Copeland Act requirements. The contractor shall comply with the requirements of 29 CFR part 3, which are incorporated by reference in this contract.

6. Subcontracts. The contractor or subcontractor shall insert Form FHWA-1273 in any subcontracts and also require the subcontractors to include Form FHWA-1273 in any lower tier subcontracts. The prime contractor shall be responsible for the compliance by any subcontractor or lower tier subcontractor with all the contract clauses in 29 CFR 5.5.

7. Contract termination: debarment. A breach of the contract clauses in 29 CFR 5.5 may be grounds for termination of the contract, and for debarment as a contractor and a subcontractor as provided in 29 CFR 5.12.

8. Compliance with Davis-Bacon and Related Act requirements. All rulings and interpretations of the Davis-Bacon and Related Acts contained in 29 CFR parts 1, 3, and 5 are herein incorporated by reference in this contract.

9. Disputes concerning labor standards. Disputes arising out of the labor standards provisions of this contract shall not be subject to the general disputes clause of this contract. Such disputes shall be resolved in accordance with the procedures of the Department of Labor set forth in 29 CFR parts 5, 6, and 7. Disputes within the meaning of this clause include disputes between the contractor (or any of its subcontractors) and the contracting agency, the U.S. Department of Labor, or the employees or their representatives.

10. Certification of eligibility.

a. By entering into this contract, the contractor certifies that neither it (nor he or she) nor any person or firm who has an interest in the contractor's firm is a person or firm ineligible to be awarded Government contracts by virtue of section 3(a) of the Davis-Bacon Act or 29 CFR 5.12(a)(1).

b. No part of this contract shall be subcontracted to any person or firm ineligible for award of a Government contract by virtue of section 3(a) of the Davis-Bacon Act or 29 CFR 5.12(a)(1).

c. The penalty for making false statements is prescribed in the U.S. Criminal Code, 18 U.S.C. 1001.

V. CONTRACT WORK HOURS AND SAFETY STANDARDS ACT

The following clauses apply to any Federal-aid construction contract in an amount in excess of \$100,000 and subject to the overtime provisions of the Contract Work Hours and Safety Standards Act. These clauses shall be inserted in addition to the clauses required by 29 CFR 5.5(a) or 29 CFR 4.6. As used in this paragraph, the terms laborers and mechanics include watchmen and guards.

1. Overtime requirements. No contractor or subcontractor contracting for any part of the contract work which may require or involve the employment of laborers or mechanics shall require or permit any such laborer or mechanic in any workweek in which he or she is employed on such work to work in excess of forty hours in such workweek unless such laborer or mechanic receives compensation at a rate not less than one and one-half times the basic rate of pay for all hours worked in excess of forty hours in such workweek.

2. Violation; liability for unpaid wages; liquidated damages. In the event of any violation of the clause set forth in paragraph (1.) of this section, the contractor and any subcontractor responsible therefor shall be liable for the unpaid wages. In addition, such contractor and subcontractor shall be liable to the United States (in the case of work done under contract for the District of Columbia or a territory, to such District or to such territory), for liquidated damages. Such liquidated damages shall be computed with respect to each individual laborer or mechanic, including watchmen and guards, employed in violation of the clause set forth in paragraph (1.) of this section, in the sum of \$10 for each calendar day on which such individual was required or permitted to work in excess of the standard workweek of forty hours without payment of the overtime wages required by the clause set forth in paragraph (1.) of this section.

3. Withholding for unpaid wages and liquidated damages. The FHWA or the contracting agency shall upon its own action or upon written request of an authorized representative of the Department of Labor withhold or cause to be withheld, from any moneys payable on account of work performed by the contractor or subcontractor under any such contract or any other Federal contract with the same prime contractor, or any other federally-assisted contract subject to the Contract Work Hours and Safety Standards Act, which is held by the same prime contractor, such sums as may be determined to be necessary to satisfy any liabilities of such contractor or subcontractor for unpaid wages and liquidated damages as provided in the clause set forth in paragraph (2.) of this section.

4. Subcontracts. The contractor or subcontractor shall insert in any subcontracts the clauses set forth in paragraph (1.) through (4.) of this section and also a clause requiring the subcontractors to include these clauses in any lower tier subcontracts. The prime contractor shall be responsible for compliance by any subcontractor or lower tier subcontractor with the clauses set forth in paragraphs (1.) through (4.) of this section.

VI. SUBLETTING OR ASSIGNING THE CONTRACT

This provision is applicable to all Federal-aid construction contracts on the National Highway System.

1. The contractor shall perform with its own organization contract work amounting to not less than 30 percent (or a greater percentage if specified elsewhere in the contract) of the total original contract price, excluding any specialty items designated by the contracting agency. Specialty items may be performed by subcontract and the amount of any such specialty items performed may be deducted from the total original contract price before computing the amount of work required to be performed by the contractor's own organization (23 CFR 635.116).

a. The term "perform work with its own organization" refers to workers employed or leased by the prime contractor, and equipment owned or rented by the prime contractor, with or without operators. Such term does not include employees or equipment of a subcontractor or lower tier subcontractor, agents of the prime contractor, or any other assignees. The term may include payments for the costs of hiring leased employees from an employee leasing firm meeting all relevant Federal and State regulatory requirements. Leased employees may only be included in this term if the prime contractor meets all of the following conditions:

- (1) the prime contractor maintains control over the supervision of the day-to-day activities of the leased employees;
- (2) the prime contractor remains responsible for the quality of the work of the leased employees;
- (3) the prime contractor retains all power to accept or exclude individual employees from work on the project; and
- (4) the prime contractor remains ultimately responsible for the payment of predetermined minimum wages, the submission of payrolls, statements of compliance and all other Federal regulatory requirements.

b. "Specialty Items" shall be construed to be limited to work that requires highly specialized knowledge, abilities, or equipment not ordinarily available in the type of contracting organizations qualified and expected to bid or propose on the contract as a whole and in general are to be limited to minor components of the overall contract.

2. The contract amount upon which the requirements set forth in paragraph (1) of Section VI is computed includes the cost of material and manufactured products which are to be purchased or produced by the contractor under the contract provisions.

3. The contractor shall furnish (a) a competent superintendent or supervisor who is employed by the firm, has full authority to direct performance of the work in accordance with the contract requirements, and is in charge of all construction operations (regardless of who performs the work) and (b) such other of its own organizational resources (supervision, management, and engineering services) as the contracting officer determines is necessary to assure the performance of the contract.

4. No portion of the contract shall be sublet, assigned or otherwise disposed of except with the written consent of the contracting officer, or authorized representative, and such consent when given shall not be construed to relieve the contractor of any responsibility for the fulfillment of the contract. Written consent will be given only after the contracting agency has assured that each subcontract is

evidenced in writing and that it contains all pertinent provisions and requirements of the prime contract.

5. The 30% self-performance requirement of paragraph (1) is not applicable to design-build contracts; however, contracting agencies may establish their own self-performance requirements.

VII. SAFETY: ACCIDENT PREVENTION

This provision is applicable to all Federal-aid construction contracts and to all related subcontracts.

1. In the performance of this contract the contractor shall comply with all applicable Federal, State, and local laws governing safety, health, and sanitation (23 CFR 635). The contractor shall provide all safeguards, safety devices and protective equipment and take any other needed actions as it determines, or as the contracting officer may determine, to be reasonably necessary to protect the life and health of employees on the job and the safety of the public and to protect property in connection with the performance of the work covered by the contract.

2. It is a condition of this contract, and shall be made a condition of each subcontract, which the contractor enters into pursuant to this contract, that the contractor and any subcontractor shall not permit any employee, in performance of the contract, to work in surroundings or under conditions which are unsanitary, hazardous or dangerous to his/her health or safety, as determined under construction safety and health standards (29 CFR 1926) promulgated by the Secretary of Labor, in accordance with Section 107 of the Contract Work Hours and Safety Standards Act (40 U.S.C. 3704).

3. Pursuant to 29 CFR 1926.3, it is a condition of this contract that the Secretary of Labor or authorized representative thereof, shall have right of entry to any site of contract performance to inspect or investigate the matter of compliance with the construction safety and health standards and to carry out the duties of the Secretary under Section 107 of the Contract Work Hours and Safety Standards Act (40 U.S.C.3704).

VIII. FALSE STATEMENTS CONCERNING HIGHWAY PROJECTS

This provision is applicable to all Federal-aid construction contracts and to all related subcontracts.

In order to assure high quality and durable construction in conformity with approved plans and specifications and a high degree of reliability on statements and representations made by engineers, contractors, suppliers, and workers on Federal-aid highway projects, it is essential that all persons concerned with the project perform their functions as carefully, thoroughly, and honestly as possible. Willful falsification, distortion, or misrepresentation with respect to any facts related to the project is a violation of Federal law. To prevent any misunderstanding regarding the seriousness of these and similar acts, Form FHWA-1022 shall be posted on each Federal-aid highway project (23 CFR 635) in one or more places where it is readily available to all persons concerned with the project:

18 U.S.C. 1020 reads as follows:

"Whoever, being an officer, agent, or employee of the United States, or of any State or Territory, or whoever, whether a person, association, firm, or corporation, knowingly makes any false statement, false representation, or false report as to the character, quality, quantity, or cost of the material used or to be used, or the quantity or quality of the work performed or to be performed, or the cost thereof in connection with the submission of plans, maps, specifications, contracts, or costs of construction on any highway or related project submitted for approval to the Secretary of Transportation; or

Whoever knowingly makes any false statement, false representation, false report or false claim with respect to the character, quality, quantity, or cost of any work performed or to be performed, or materials furnished or to be furnished, in connection with the construction of any highway or related project approved by the Secretary of Transportation; or

Whoever knowingly makes any false statement or false representation as to material fact in any statement, certificate, or report submitted pursuant to provisions of the Federal-aid Roads Act approved July 1, 1916, (39 Stat. 355), as amended and supplemented;

Shall be fined under this title or imprisoned not more than 5 years or both."

IX. IMPLEMENTATION OF CLEAN AIR ACT AND FEDERAL WATER POLLUTION CONTROL ACT

This provision is applicable to all Federal-aid construction contracts and to all related subcontracts.

By submission of this bid/proposal or the execution of this contract, or subcontract, as appropriate, the bidder, proposer, Federal-aid construction contractor, or subcontractor, as appropriate, will be deemed to have stipulated as follows:

1. That any person who is or will be utilized in the performance of this contract is not prohibited from receiving an award due to a violation of Section 508 of the Clean Water Act or Section 306 of the Clean Air Act.

2. That the contractor agrees to include or cause to be included the requirements of paragraph (1) of this Section X in every subcontract, and further agrees to take such action as the contracting agency may direct as a means of enforcing such requirements.

X. CERTIFICATION REGARDING DEBARMENT, SUSPENSION, INELIGIBILITY AND VOLUNTARY EXCLUSION

This provision is applicable to all Federal-aid construction contracts, design-build contracts, subcontracts, lower-tier subcontracts, purchase orders, lease agreements, consultant contracts or any other covered transaction requiring FHWA approval or that is estimated to cost \$25,000 or more – as defined in 2 CFR Parts 180 and 1200.

1. Instructions for Certification – First Tier Participants:

a. By signing and submitting this proposal, the prospective first tier participant is providing the certification set out below.

b. The inability of a person to provide the certification set out below will not necessarily result in denial of participation in this

covered transaction. The prospective first tier participant shall submit an explanation of why it cannot provide the certification set out below. The certification or explanation will be considered in connection with the department or agency's determination whether to enter into this transaction. However, failure of the prospective first tier participant to furnish a certification or an explanation shall disqualify such a person from participation in this transaction.

c. The certification in this clause is a material representation of fact upon which reliance was placed when the contracting agency determined to enter into this transaction. If it is later determined that the prospective participant knowingly rendered an erroneous certification, in addition to other remedies available to the Federal Government, the contracting agency may terminate this transaction for cause of default.

d. The prospective first tier participant shall provide immediate written notice to the contracting agency to whom this proposal is submitted if any time the prospective first tier participant learns that its certification was erroneous when submitted or has become erroneous by reason of changed circumstances.

e. The terms "covered transaction," "debarred," "suspended," "ineligible," "participant," "person," "principal," and "voluntarily excluded," as used in this clause, are defined in 2 CFR Parts 180 and 1200. "First Tier Covered Transactions" refers to any covered transaction between a grantee or subgrantee of Federal funds and a participant (such as the prime or general contract). "Lower Tier Covered Transactions" refers to any covered transaction under a First Tier Covered Transaction (such as subcontracts). "First Tier Participant" refers to the participant who has entered into a covered transaction with a grantee or subgrantee of Federal funds (such as the prime or general contractor). "Lower Tier Participant" refers any participant who has entered into a covered transaction with a First Tier Participant or other Lower Tier Participants (such as subcontractors and suppliers).

f. The prospective first tier participant agrees by submitting this proposal that, should the proposed covered transaction be entered into, it shall not knowingly enter into any lower tier covered transaction with a person who is debarred, suspended, declared ineligible, or voluntarily excluded from participation in this covered transaction, unless authorized by the department or agency entering into this transaction.

g. The prospective first tier participant further agrees by submitting this proposal that it will include the clause titled "Certification Regarding Debarment, Suspension, Ineligibility and Voluntary Exclusion-Lower Tier Covered Transactions," provided by the department or contracting agency, entering into this covered transaction, without modification, in all lower tier covered transactions and in all solicitations for lower tier covered transactions exceeding the \$25,000 threshold.

h. A participant in a covered transaction may rely upon a certification of a prospective participant in a lower tier covered transaction that is not debarred, suspended, ineligible, or voluntarily excluded from the covered transaction, unless it knows that the certification is erroneous. A participant is responsible for ensuring that its principals are not suspended, debarred, or otherwise ineligible to participate in covered transactions. To verify the eligibility of its principals, as well as the eligibility of any lower tier prospective participants, each participant may, but is not required to, check the Excluded Parties List System website (<https://www.epls.gov/>), which is compiled by the General Services Administration.

i. Nothing contained in the foregoing shall be construed to require the establishment of a system of records in order to render in good faith the certification required by this clause. The knowledge and information of the prospective participant is not required to exceed that which is normally possessed by a prudent person in the ordinary course of business dealings.

j. Except for transactions authorized under paragraph (f) of these instructions, if a participant in a covered transaction knowingly enters into a lower tier covered transaction with a person who is suspended, debarred, ineligible, or voluntarily excluded from participation in this transaction, in addition to other remedies available to the Federal Government, the department or agency may terminate this transaction for cause or default.

* * * * *

2. Certification Regarding Debarment, Suspension, Ineligibility and Voluntary Exclusion – First Tier Participants:

a. The prospective first tier participant certifies to the best of its knowledge and belief, that it and its principals:

(1) Are not presently debarred, suspended, proposed for debarment, declared ineligible, or voluntarily excluded from participating in covered transactions by any Federal department or agency;

(2) Have not within a three-year period preceding this proposal been convicted of or had a civil judgment rendered against them for commission of fraud or a criminal offense in connection with obtaining, attempting to obtain, or performing a public (Federal, State or local) transaction or contract under a public transaction; violation of Federal or State antitrust statutes or commission of embezzlement, theft, forgery, bribery, falsification or destruction of records, making false statements, or receiving stolen property;

(3) Are not presently indicted for or otherwise criminally or civilly charged by a governmental entity (Federal, State or local) with commission of any of the offenses enumerated in paragraph (a)(2) of this certification; and

(4) Have not within a three-year period preceding this application/proposal had one or more public transactions (Federal, State or local) terminated for cause or default.

b. Where the prospective participant is unable to certify to any of the statements in this certification, such prospective participant shall attach an explanation to this proposal.

2. Instructions for Certification - Lower Tier Participants:

(Applicable to all subcontracts, purchase orders and other lower tier transactions requiring prior FHWA approval or estimated to cost \$25,000 or more - 2 CFR Parts 180 and 1200)

a. By signing and submitting this proposal, the prospective lower tier is providing the certification set out below.

b. The certification in this clause is a material representation of fact upon which reliance was placed when this transaction was entered into. If it is later determined that the prospective lower tier participant knowingly rendered an erroneous certification, in addition to other remedies available to the Federal Government, the department, or agency with which

this transaction originated may pursue available remedies, including suspension and/or debarment.

c. The prospective lower tier participant shall provide immediate written notice to the person to which this proposal is submitted if at any time the prospective lower tier participant learns that its certification was erroneous by reason of changed circumstances.

d. The terms "covered transaction," "debarred," "suspended," "ineligible," "participant," "person," "principal," and "voluntarily excluded," as used in this clause, are defined in 2 CFR Parts 180 and 1200. You may contact the person to which this proposal is submitted for assistance in obtaining a copy of those regulations. "First Tier Covered Transactions" refers to any covered transaction between a grantee or subgrantee of Federal funds and a participant (such as the prime or general contract). "Lower Tier Covered Transactions" refers to any covered transaction under a First Tier Covered Transaction (such as subcontracts). "First Tier Participant" refers to the participant who has entered into a covered transaction with a grantee or subgrantee of Federal funds (such as the prime or general contractor). "Lower Tier Participant" refers any participant who has entered into a covered transaction with a First Tier Participant or other Lower Tier Participants (such as subcontractors and suppliers).

e. The prospective lower tier participant agrees by submitting this proposal that, should the proposed covered transaction be entered into, it shall not knowingly enter into any lower tier covered transaction with a person who is debarred, suspended, declared ineligible, or voluntarily excluded from participation in this covered transaction, unless authorized by the department or agency with which this transaction originated.

f. The prospective lower tier participant further agrees by submitting this proposal that it will include this clause titled "Certification Regarding Debarment, Suspension, Ineligibility and Voluntary Exclusion-Lower Tier Covered Transaction," without modification, in all lower tier covered transactions and in all solicitations for lower tier covered transactions exceeding the \$25,000 threshold.

g. A participant in a covered transaction may rely upon a certification of a prospective participant in a lower tier covered transaction that is not debarred, suspended, ineligible, or voluntarily excluded from the covered transaction, unless it knows that the certification is erroneous. A participant is responsible for ensuring that its principals are not suspended, debarred, or otherwise ineligible to participate in covered transactions. To verify the eligibility of its principals, as well as the eligibility of any lower tier prospective participants, each participant may, but is not required to, check the Excluded Parties List System website (<https://www.epls.gov/>), which is compiled by the General Services Administration.

h. Nothing contained in the foregoing shall be construed to require establishment of a system of records in order to render in good faith the certification required by this clause. The knowledge and information of participant is not required to exceed that which is normally possessed by a prudent person in the ordinary course of business dealings.

i. Except for transactions authorized under paragraph e of these instructions, if a participant in a covered transaction knowingly enters into a lower tier covered transaction with a person who is suspended, debarred, ineligible, or voluntarily excluded from participation in this transaction, in addition to other remedies available to the Federal Government, the

department or agency with which this transaction originated may pursue available remedies, including suspension and/or debarment.

* * * * *

Certification Regarding Debarment, Suspension, Ineligibility and Voluntary Exclusion--Lower Tier Participants:

1. The prospective lower tier participant certifies, by submission of this proposal, that neither it nor its principals is presently debarred, suspended, proposed for debarment, declared ineligible, or voluntarily excluded from participating in covered transactions by any Federal department or agency.

2. Where the prospective lower tier participant is unable to certify to any of the statements in this certification, such prospective participant shall attach an explanation to this proposal.

* * * * *

XI. CERTIFICATION REGARDING USE OF CONTRACT FUNDS FOR LOBBYING

This provision is applicable to all Federal-aid construction contracts and to all related subcontracts which exceed \$100,000 (49 CFR 20).

1. The prospective participant certifies, by signing and submitting this bid or proposal, to the best of his or her knowledge and belief, that:

a. No Federal appropriated funds have been paid or will be paid, by or on behalf of the undersigned, to any person for influencing or attempting to influence an officer or employee of any Federal agency, a Member of Congress, an officer or employee of Congress, or an employee of a Member of Congress in connection with the awarding of any Federal contract, the making of any Federal grant, the making of any Federal loan, the entering into of any cooperative agreement, and the extension, continuation, renewal, amendment, or modification of any Federal contract, grant, loan, or cooperative agreement.

b. If any funds other than Federal appropriated funds have been paid or will be paid to any person for influencing or attempting to influence an officer or employee of any Federal agency, a Member of Congress, an officer or employee of Congress, or an employee of a Member of Congress in connection with this Federal contract, grant, loan, or cooperative agreement, the undersigned shall complete and submit Standard Form-LLL, "Disclosure Form to Report Lobbying," in accordance with its instructions.

2. This certification is a material representation of fact upon which reliance was placed when this transaction was made or entered into. Submission of this certification is a prerequisite for making or entering into this transaction imposed by 31 U.S.C. 1352. Any person who fails to file the required certification shall be subject to a civil penalty of not less than \$10,000 and not more than \$100,000 for each such failure.

3. The prospective participant also agrees by submitting its bid or proposal that the participant shall require that the language of this certification be included in all lower tier subcontracts, which exceed \$100,000 and that all such recipients shall certify and disclose accordingly.

**ATTACHMENT A - EMPLOYMENT AND MATERIALS
PREFERENCE FOR APPALACHIAN DEVELOPMENT
HIGHWAY SYSTEM OR APPALACHIAN LOCAL ACCESS
ROAD CONTRACTS**

This provision is applicable to all Federal-aid projects funded under the Appalachian Regional Development Act of 1965.

1. During the performance of this contract, the contractor undertaking to do work which is, or reasonably may be, done as on-site work, shall give preference to qualified persons who regularly reside in the labor area as designated by the DOL wherein the contract work is situated, or the subregion, or the Appalachian counties of the State wherein the contract work is situated, except:

a. To the extent that qualified persons regularly residing in the area are not available.

b. For the reasonable needs of the contractor to employ supervisory or specially experienced personnel necessary to assure an efficient execution of the contract work.

c. For the obligation of the contractor to offer employment to present or former employees as the result of a lawful collective bargaining contract, provided that the number of nonresident persons employed under this subparagraph (1c) shall not exceed 20 percent of the total number of employees employed by the contractor on the contract work, except as provided in subparagraph (4) below.

2. The contractor shall place a job order with the State Employment Service indicating (a) the classifications of the laborers, mechanics and other employees required to perform the contract work, (b) the number of employees required in each classification, (c) the date on which the participant estimates such employees will be required, and (d) any other pertinent information required by the State Employment Service to complete the job order form. The job order may be placed with the State Employment Service in writing or by telephone. If during the course of the contract work, the information submitted by the contractor in the original job order is substantially modified, the participant shall promptly notify the State Employment Service.

3. The contractor shall give full consideration to all qualified job applicants referred to him by the State Employment Service. The contractor is not required to grant employment to any job applicants who, in his opinion, are not qualified to perform the classification of work required.

4. If, within one week following the placing of a job order by the contractor with the State Employment Service, the State Employment Service is unable to refer any qualified job applicants to the contractor, or less than the number requested, the State Employment Service will forward a certificate to the contractor indicating the unavailability of applicants. Such certificate shall be made a part of the contractor's permanent project records. Upon receipt of this certificate, the contractor may employ persons who do not normally reside in the labor area to fill positions covered by the certificate, notwithstanding the provisions of subparagraph (1c) above.

5. The provisions of 23 CFR 633.207(e) allow the contracting agency to provide a contractual preference for the use of mineral resource materials native to the Appalachian region.

6. The contractor shall include the provisions of Sections 1 through 4 of this Attachment A in every subcontract for work which is, or reasonably may be, done as on-site work.

Training Special Provisions

This Training Special Provision supersedes subparagraph 7b of the Special Provision entitled “Specific Equal Employment Opportunity Responsibilities”, and is in implementation of 23 U.S.C. 140(a).

As part of the Contractor's Equal Employment Opportunity Affirmative Action Program, training shall be provided as follows:

The Contractor shall provide on-the-job training aimed at developing full journeymen in the type of trade or job classification involved.

The number of trainees to be trained under the special provisions will be ____ (amount to be filled in by State highway department).

In the event that a contractor subcontracts a portion of the contract work, he shall determine how many, if any, of the trainees are to be trained by the subcontractor, provided, however, that the contractor shall retain the primary responsibility for meeting the training requirements imposed by this special provision. The contractor shall also insure that this training special provision is made applicable to such subcontract. Where feasible, 25 percent of apprentices or trainees in each occupation shall be in their first year of apprenticeship or training.

The number of trainees shall be distributed among the work classifications on the basis of the contractor's needs and the availability of journeymen in the various classifications within a reasonable area of recruitment. Prior to commencing construction, the contractor shall submit to the State highway agency for approval the number of trainees to be trained in each selected classification and training program to be used. Furthermore, the contractor shall specify the starting time for training in each of the classifications. The contractor will be credited for each trainee employed by him on the contract work who is currently enrolled or becomes enrolled in an approved program and will be reimbursed for such trainees as provided hereinafter.

Training and upgrading of minorities and women toward journeymen status is a primary objective of this Training Special Provision. Accordingly, the contractor shall make every effort to enroll minority trainees and women (e.g., by conducting systematic and direct recruitment through public and private sources likely to yield minority and women trainees) to the extent that such persons are available within a reasonable area of recruitment. The contractor will be responsible for demonstrating the steps that he has taken in pursuance thereof, prior to a determination as to whether the contractor is in compliance with this Training Special Provision. This training commitment is not intended, and shall not be used, to discriminate against any applicant for training, whether a member of a minority group or not.

No employee shall be employed as a trainee in any classification in which he has successfully completed a training course leading to journeyman status or in which he has been employed as a journeyman. The contractor should satisfy this requirement by including appropriate questions in the employee application or by other suitable means. Regardless of the method used the contractor's records should document the findings in each case.

The minimum length and type of training for each classification will be as established in the training program selected by the contractor and approved by the State highway agency and the Federal Highway Administration. The State highway agency and the Federal Highway Administration shall approve a program if it is reasonably calculated to meet the equal employment opportunity obligations of the contractor and to qualify the average trainee for journeyman status in the classification concerned by the end of the training period. Furthermore, apprenticeship programs registered with the U.S. Department of Labor, Bureau of Apprenticeship and Training, or with a State apprenticeship agency recognized by the Bureau and training programs approved but not necessarily sponsored by the U.S. Department of Labor, Manpower Administration, Bureau of Apprenticeship and Training shall also be considered acceptable provided it is being administered in a manner consistent with the equal employment obligations of Federal-aid highway construction contracts. Approval or acceptance of a training program shall be obtained from the State prior to commencing work on the classification covered by the program. It is the intention of these provisions that training is to be provided in the construction crafts rather than clerk-typists or secretarial-type positions. Training is permissible in lower level management positions such as office engineers, estimators, timekeepers, etc., where the training is oriented toward construction applications. Training in the laborer classification may be permitted provided that significant and meaningful training is provided and approved by the division office. Some offsite training is permissible as long as the training is an integral part of an approved training program and does not comprise a significant part of the overall training.

Except as otherwise noted below, the Contractor will be reimbursed 80 cents per hour of training given an employee on this contract in accordance with an approved training program. As approved by the engineer, reimbursement will be made for training persons in excess of the number specified herein. This reimbursement will be made even though the contractor receives additional training program funds from other sources, provided such other does not specifically prohibit the contractor from receiving other reimbursement. Reimbursement for offsite training indicated above may only be made to the contractor where he does one or more of the following and the trainees are concurrently employed on a Federal-aid project; contributes to the cost of the training, provides the instruction to the trainee or pays the trainee's wages during the offsite training period.

No payment shall be made to the Contractor if either the failure to provide the required training, or the failure to hire the trainee as a journeyman, is caused by the contractor and evidences a lack of good faith on the part of the contractor in meeting the requirements of this Training Special Provision. It is normally expected that a trainee will begin his training on the project as soon as feasible after start of work utilizing the skill involved and remain on the project as long as training opportunities exist in his work classification or until he has completed his training program. It is not required that all trainees be on board for the entire length of the contract. A contractor will have fulfilled his responsibilities under this Training Special Provision if he has provided acceptable training to the number of trainees specified. The number trained shall be determined on the basis of the total number enrolled on the contract for a significant period.

Trainees will be paid at least 60 percent of the appropriate minimum journeyman's rate specified in the contract for the first half of the training period, 75 percent for the third quarter of the training period, and 90 percent for the last quarter of the training period, unless apprentices or trainees in an approved existing program are enrolled as trainees on this project. In that case, the appropriate rates approved by the Departments of Labor or Transportation in connection with the existing program shall apply to all trainees being trained for the same classification who are covered by this Training Special Provision.

The Contractor shall furnish the trainee a copy of the program he will follow in providing the training. The contractor shall provide each trainee with a certification showing the type and length of training satisfactorily completed.

The contractor will provide for the maintenance of records and furnish periodic reports documenting his performance under this Training Special Provision.

[40 FR 28053, July 3, 1975. Correctly redesignated at 46 FR 21156, Apr. 9, 1981]

NEW HAMPSHIRE DEPARTMENT OF TRANSPORTATION POLICY

Failure to complete the Training Special Provision requirement: When a Contractor fails to complete this Training Special Provision requirement and fails to make and document good faith efforts to fulfill the requirements of this provision, the New Hampshire Department of Transportation Office of Federal Compliance (OFC) shall notify the Prequalification Committee in writing. The Prequalification Committee will inform the Contractor of the OFC notification and require the Contractor to submit a Corrective Action Plan to the OFC. Failure to provide an acceptable Corrective Action Plan could lead to partial or full suspension consistent with the prequalification rules.

41 CFR 60-4 Affirmative Action Requirements

41 CFR 60-4.2 Solicitations

Notice of Requirement for Affirmative Action To Ensure Equal Employment Opportunity (Executive Order 11246)

The Offeror's or Bidder's attention is called to the "Equal Opportunity Clause" and the "Standard Federal Equal Employment Specifications" set forth herein.

The goals and timetables for minority and female participation, expressed in percentage terms for the Contractor's aggregate workforce in each trade on all construction work in the covered area, are as follows:

| | Goals for minority participation for each trade | Goals for female participation in each trade |
|--|---|--|
| <u>STANDARD METROPOLITAN STATISTICAL AREAS (SMSA)</u> | | |
| SALEM-PLAISTOW | 4.0 | 6.9 |
| MANCHESTER-NASHUA | 0.7 | 6.9 |
| <u>NON-SMSA COUNTIES</u> | | |
| COOS, GRAFTON, SULLIVAN | 0.8 | 6.9 |
| BELKNAP, MERRIMACK, CARROLL, STRAFFORD | 3.6 | 6.9 |
| CHESHIRE | 5.9 | 6.9 |
| ROCKINGHAM | 4.0 | 6.9 |
| HILLSBOROUGH | 0.7 | 6.9 |

These goals are applicable to all contractor's construction work (whether or not it is Federal or federally assisted) performed in the covered area. If the Contractor performs construction work in a geographical area located outside of the covered area, it shall apply the goals established for such geographical area where the work is actually performed. With regard to this second area, the Contractor also is subject to the goals for both its federally involved and nonfederally involved construction.

The Contractor's compliance with Executive Order and the regulations in 41 CFR Part 60-4 shall be based on its implementation of the Equal Opportunity Clause, specific affirmative action obligations required by specifications set forth in 41 CFR 60-4.3(a), and its efforts to meet the goals. The hours of minority and female employment and training must be substantially uniform throughout the length of the contract, and in each trade, and the contractor shall make a good faith effort to employ minorities and women evenly on each of its projects. The transfer of minority or female employees or trainees from Contractor to Contractor or from project to project for the sole purpose of meeting the contractor's goals shall be a violation of the contract, the Executive Order and the regulations in 41 CFR Part 60-4. Compliance with the goals will be measured against the total work hours performed.

The Contractor shall provide written notification to the Director of the Office of Federal contract compliance programs within 10 working days of award of any construction subcontract in excess of \$10,000 at any tier for construction work under the contract resulting from this solicitation addressed as follows:

Director
Federal Contract Compliance Program
US Department of Labor
JFK Building, Room 1612-C
Boston, MA 02203

The notification shall list the name, address and telephone number of the subcontractor; employer identification number of the subcontractor; estimated dollar amount of the subcontract; estimated starting and completion dates of the subcontract; and the geographical area in which the subcontract is to be performed as noted within in the Contract Special Provisions for Affirmative Action to ensure Equal Employment Opportunity.

STANDARD FEDERAL EQUAL EMPLOYMENT OPPORTUNITY CONSTRUCTION CONTRACT SPECIFICATIONS (EXECUTIVE ORDER 11246)

1. As used in these specifications:

a. "Covered area" means the geographical area described in the solicitation from which this contract resulted;

b. "Director" means Director, Office of Federal Contract Compliance Programs, United States Department of Labor, or any person to whom the Director delegates authority;

c. "Employer identification number" means the Federal Social Security number used on the Employer's Quarterly Federal Tax Return, U.S. Treasury Department Form 941.

d. "Minority" includes:

(i) Black (all persons having origins in any of the Black African racial groups not of Hispanic origin);

(ii) Hispanic (all persons of Mexican, Puerto Rican, Cuban, Central or South American or other Spanish Culture or origin, regardless of race);

(iii) Asian and Pacific Islander (all persons having origins in any of the original peoples of the Far East, Southeast Asia, the Indian Subcontinent, or the Pacific Islands); and

(iv) American Indian or Alaskan Native (all persons having origins in any of the original peoples of North America and maintaining identifiable tribal affiliations through membership and participation or community identification).

2. Whenever the Contractor, or any Subcontractor at any tier, subcontracts a portion of the work involving any construction trade, it shall physically include in each subcontract in excess of \$10,000 the provisions of these specifications and the Notice which contains the applicable goals for minority and female participation and which is set forth in the solicitations from which this contract resulted.

3. If the Contractor is participating (pursuant to 41 CFR 60-4.5) in a Hometown Plan approved by the U.S. Department of Labor in the covered area either individually or through an association, its affirmative action obligations on all work in the Plan area (including goals and timetables) shall be in accordance with that Plan for those trades which have unions participating in the Plan. Contractors must be able to demonstrate their participation in and compliance with the provisions of any such Hometown Plan. Each Contractor or Subcontractor participating in an approved Plan is individually required to comply with its obligations under the EEO clause, and to make a good faith effort to achieve each goal under the Plan in each trade in which it has employees. The overall good faith performance by other Contractors or Subcontractors toward a goal in an approved Plan does not excuse any covered Contractor's or Subcontractor's failure to take good faith efforts to achieve the Plan goals and timetables.

4. The Contractor shall implement the specific affirmative action standards provided in paragraphs 7 a through p of these specifications. The goals set forth in the solicitation from which this contract resulted are expressed as percentages of the total hours of employment and training of minority and female utilization the Contractor should reasonably be able to achieve in each construction trade in which it has employees in the covered area. Covered Construction contractors performing construction work in geographical areas where they do not have a Federal or federally assisted construction contract shall apply the minority and female goals established for the geographical area where the work is being performed. Goals are published periodically in the Federal Register in notice form, and such notices may be obtained from any Office of Federal Contract Compliance Programs office or from Federal procurement contracting officers. The Contractor is expected to make substantially uniform progress in meeting its goals in each craft during the period specified.

5. Neither the provisions of any collective bargaining agreement, nor the failure by a union with whom the Contractor has a collective bargaining agreement, to refer either minorities or women shall excuse the Contractor's obligations under these specifications, Executive Order 11246, or the regulations promulgated pursuant thereto.

6. In order for the nonworking training hours of apprentices and trainees to be counted in meeting the goals, such apprentices and trainees must be employed by the Contractor during the training period, and the Contractor must have made a commitment to employ the apprentices and trainees at the completion of their training, subject to the availability of employment opportunities. Trainees must be trained pursuant to training programs approved by the U.S. Department of Labor.

7. The Contractor shall take specific affirmative actions to ensure equal employment opportunity. The evaluation of the Contractor's compliance with these specifications shall be based upon its effort to achieve maximum results from its actions. The Contractor shall document these efforts fully, and shall implement affirmative action steps at least as extensive as the following:

a. Ensure and maintain a working environment free of harassment, intimidation, and coercion at all sites, and in all facilities at which the Contractor's employees are assigned to work. The Contractor, where possible, will assign two or more women to each construction project. The Contractor shall specifically ensure that all foremen, superintendents, and other on-site supervisory personnel are aware of and carry out the Contractor's obligation to maintain such a working environment, with specific attention to minority or female individuals working at such sites or in such facilities.

Source 41 CFR 60-4.3 Equal Opportunity Clauses

b. Establish and maintain a current list of minority and female recruitment sources, provide written notification to minority and female recruitment sources and to community organizations when the Contractor or its unions have employment opportunities available, and maintain a record of the organizations' responses.

c. Maintain a current file of the names, addresses and telephone numbers of each minority and female off-the-street applicant and minority or female referral from a union, a recruitment source or community organization and of what action was taken with respect to each such individual. If such individual was sent to the union hiring hall for referral and was not referred back to the Contractor by the union or, if referred, not employed by the Contractor, this shall be documented in the file with the reason therefor, along with whatever additional actions the Contractor may have taken.

d. Provide immediate written notification to the Director when the union or unions with which the Contractor has a collective bargaining agreement has not referred to the Contractor a minority person or woman sent by the Contractor, or when the Contractor has other information that the union referral process has impeded the Contractor's efforts to meet its obligations.

e. Develop on-the-job training opportunities and/or participate in training programs for the area which expressly include minorities and women, including upgrading programs and apprenticeship and trainee programs relevant to the Contractor's employment needs, especially those programs funded or approved by the Department of Labor. The Contractor shall provide notice of these programs to the sources compiled under 7b above.

f. Disseminate the Contractor's EEO policy by providing notice of the policy to unions and training programs and requesting their cooperation in assisting the Contractor in meeting its EEO obligations; by including it in any policy manual and collective bargaining agreement; by publicizing it in the company newspaper, annual report, etc.; by specific review of the policy with all management personnel and with all minority and female employees at least once a year; and by posting the company EEO policy on bulletin boards accessible to all employees at each location where construction work is performed.

g. Review, at least annually, the company's EEO policy and affirmative action obligations under these specifications with all employees having any responsibility for hiring, assignment, layoff, termination or other employment decisions including specific review of these items with onsite supervisory personnel such as Superintendents, General Foremen, etc., prior to the initiation of construction work at any job site. A written record shall be made and maintained identifying the time and place of these meetings, persons attending, subject matter discussed, and disposition of the subject matter.

h. Disseminate the Contractor's EEO policy externally by including it in any advertising in the news media, specifically including minority and female news media, and providing written notification to and discussing the Contractor's EEO policy with other Contractors and

Subcontractors with whom the Contractor does or anticipates doing business.

i. Direct its recruitment efforts, both oral and written, to minority, female and community organizations, to schools with minority and female students and to minority and female recruitment and training organizations serving the Contractor's recruitment area and employment needs. Not later than one month prior to the date for the acceptance of applications for apprenticeship or other training by any recruitment source, the Contractor shall send written notification to organizations such as the above, describing the openings, screening procedures, and tests to be used in the selection process.

j. Encourage present minority and female employees to recruit other minority persons and women and, where reasonable, provide after school, summer and vacation employment to minority and female youth both on the site and in other areas of a Contractor's work force.

k. Validate all tests and other selection requirements where there is an obligation to do so under 41 CFR part 60-3.

l. Conduct, at least annually, an inventory and evaluation at least of all minority and female personnel for promotional opportunities and encourage these employees to seek or to prepare for, through appropriate training, etc., such opportunities.

m. Ensure that seniority practices, job classifications, work assignments and other personnel practices, do not have a discriminatory effect by continually monitoring all personnel and employment related activities to ensure that the EEO policy and the Contractor's obligations under these specifications are being carried out.

n. Ensure that all facilities and company activities are nonsegregated except that separate or single-user toilet and necessary changing facilities shall be provided to assure privacy between the sexes.

o. Document and maintain a record of all solicitations of offers for subcontracts from minority and female construction contractors and suppliers, including circulation of solicitations to minority and female contractor associations and other business associations.

p. Conduct a review, at least annually, of all supervisors' adherence to and performance under the Contractor's EEO policies and affirmative action obligations.

8. Contractors are encouraged to participate in voluntary associations which assist in fulfilling one or more of their affirmative action obligations (7a through p). The efforts of a contractor association, joint contractor-union, contractor-community, or other similar group of which the contractor is a member and participant, may be asserted as fulfilling any one or more of its obligations under 7a through p of these Specifications provided that the contractor actively participates in the group, makes every effort to assure that the group has a positive impact on the employment of minorities and women in the industry, ensures that the concrete benefits of the program are reflected in the Contractor's minority and female workforce participation, makes a good faith effort to meet its individual goals and

Source 41 CFR 60-4.3 Equal Opportunity Clauses

timetables, and can provide access to documentation which demonstrates the effectiveness of actions taken on behalf of the Contractor. The obligation to comply, however, is the Contractor's and failure of such a group to fulfill an obligation shall not be a defense for the Contractor's noncompliance.

9. A single goal for minorities and a separate single goal for women have been established. The Contractor, however, is required to provide equal employment opportunity and to take affirmative action for all minority groups, both male and female, and all women, both minority and non-minority. Consequently, the Contractor may be in violation of the Executive Order if a particular group is employed in a substantially disparate manner (for example, even though the Contractor has achieved its goals for women generally, the Contractor may be in violation of the Executive Order if a specific minority group of women is underutilized).

10. The Contractor shall not use the goals and timetables or affirmative action standards to discriminate against any person because of race, color, religion, sex, sexual orientation, gender identity, or national origin.

11. The Contractor shall not enter into any Subcontract with any person or firm debarred from Government contracts pursuant to Executive Order 11246.

12. The Contractor shall carry out such sanctions and penalties for violation of these specifications and of the Equal Opportunity Clause, including suspension, termination and cancellation of existing subcontracts as may be imposed or ordered pursuant to Executive Order 11246, as amended, and its implementing regulations, by the Office of Federal Contract Compliance Programs. Any Contractor who fails to carry out such sanctions and penalties shall be in violation of these specifications and Executive Order 11246, as amended.

13. The Contractor, in fulfilling its obligations under these specifications, shall implement specific affirmative action steps, at least as extensive as those standards prescribed in paragraph 7 of these specifications, so as to achieve maximum results from its efforts to ensure equal employment opportunity. If the Contractor fails to comply with the requirements of the Executive Order, the implementing regulations, or these specifications, the Director shall proceed in accordance with 41 CFR 60-4.8.

14. The Contractor shall designate a responsible official to monitor all employment related activity to ensure that the company EEO policy is being carried out, to submit reports relating to the provisions hereof as may be required by the Government and to keep records. Records shall at least include for each employee the name, address, telephone numbers, construction trade, union affiliation if any, employee identification number when assigned, social security number, race, sex, status (e.g., mechanic, apprentice trainee, helper, or laborer), dates of changes in status, hours worked per week in the indicated trade, rate of pay, and locations at which the work was performed. Records shall be maintained in an easily understandable and retrievable form; however, to the degree that existing records satisfy this requirement, contractors shall not be required to maintain separate records.

15. Nothing herein provided shall be construed as a limitation upon the application of other laws which establish different standards of compliance or upon the application of requirements for the hiring of local or other area residents (e.g., those under the Public Works Employment Act of 1977 and the Community Development Block Grant Program).

(b) The notice set forth in 41 CFR 60-4.2 and the specifications set forth in 41 CFR 60-4.3 replace the New Form for Federal Equal Employment Opportunity Bid Conditions for Federal and Federally Assisted Construction published at 41 FR 32482 and commonly known as the Model Federal EEO Bid Conditions, and the New Form shall not be used after the regulations in 41 CFR part 60-4 become effective.

[43 FR 49254, Oct. 20, 1978; 43 FR 51401, Nov. 3, 1978, as amended at 45 FR 65978, Oct. 3, 1980; 79 FR 72995, Dec. 9, 2014]

NOTICE TO ALL BIDDERS

In accordance with the Section "NOTICE OF REQUIREMENT FOR AFFIRMATIVE ACTION TO ENSURE EQUAL EMPLOYMENT OPPORTUNITY (EXECUTIVE ORDER 11246)", the New Hampshire Department of Transportation has the authority and responsibility to notify the Office of Federal Contract Compliance Program of the United States Department of Labor if they become aware of any possible violations of Executive Order 11246 and 41 Code of Federal Regulation Chapter 60.

The Office of Federal Contract Compliance Programs is the sole authority for determining compliance with Executive Order 11246 and 41 Code of Federal Regulation Chapter 60 and the Contractor should contact them regarding related compliance issues.

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NOTICE TO ALL BIDDERS

To report bid rigging activities call:

1-800-424-9071

To the U.S. Department of Transportation (DOT) operates the above toll-free "hotline" Monday through Friday, 8:00 a.m. to 5:00 p.m., Eastern Time. Anyone with knowledge of possible bid rigging, bidder collusion, or other fraudulent activities should use the "hotline" to report such activities.

The "hotline" is part of the DOT's continuing effort to identify and investigate highway construction contract fraud and abuse and is operated under the direction of DOT Inspector General. All information will be treated confidentially and caller anonymity will be respected.

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**STATE OF NEW HAMPSHIRE
DEPARTMENT OF TRANSPORTATION**

Proposal of _____
NAME

ADDRESS

to furnish and deliver all materials and to perform all work in accordance with the Contract of the State of New Hampshire, Department of Transportation for which proposals will be received until 2:00 o'clock P.M., Prevailing Time on
Said project being situated as follows:

N.H. Department of Transportation
John O. Morton Building
Room 130, Contract Section
P. O. Box 483
Concord, NH 03302-0483

Commissioner:

In accordance with the advertisement of the Department of Transportation inviting proposals for the project hereinbefore named and in conformity with the Plans and Specifications on file in the office of the Department of Transportation, I/WE hereby certify that I AM/WE ARE the only person, or persons, interested in this proposal as principals; that this proposal is made without collusion with any person, firm or corporation; that an examination has been made of the Plans, of the Standard Specifications, of the Standard Plans Book, of the Proposal, and applicable addendums, including but not restricted to the Special Attentions, Supplemental Specifications, and Special Provisions attached thereto, and also that an examination has been made of the site of the work; and I, or we, propose to furnish all necessary machinery, equipment, tools, labor and other means of construction, and to furnish all materials specified in the manner and at the time prescribed; and understand that the quantities of work as shown herein are approximate only and are subject to increase or decrease, and further understand that all quantities of work whether increased or decreased are to be performed at the following prices:

Bid Schedule

BEDFORD
16156
X-A001(160)

NOTE: This proposal shall be prepared by the bidder, with the unit prices specified in both words and figures, and the extensions made by the bidder. For complete information concerning these items, see plans, special provisions, supplemental specifications, and 2016 NHDOT Standard Specifications for Road and Bridge Construction.

| Item# | Quantity | Description | Unit Price | Amount |
|-----------|--------------|---|------------|--------|
| 201.1 | 0.10 A | CLEARING AND GRUBBING (F) At _____ Dollars Per A | | |
| 201.881 | 350.00 SY | INVASIVE SPECIES CONTROL TYPE I At _____ Dollars Per SY | | |
| 202.41 | 40.00 LF | REMOVAL OF EXISTING PIPE 0-24" DIAMETER At _____ Dollars Per LF | | |
| 202.42 | 30.00 LF | REMOVAL OF EXISTING PIPE OVER 24" DIAMETER At _____ Dollars Per LF | | |
| 202.7 | 390.00 LF | REMOVAL OF GUARDRAIL At _____ Dollars Per LF | | |
| 203.11 | 410.00 CY | COMMON EXCAVATION - LRS At _____ Dollars Per CY | | |
| 203.55543 | 1.00 U | GUARDRAIL EAGRT OFFSET PLATFORM, TL 3 At _____ Dollars Per U | | |
| 203.601 | 20.00 CY | EMBANKMENT-IN-PLACE At _____ Dollars Per CY | | |
| 206.19 | 70.00 CY | COMMON STRUCTURE EXCAVATION EXPLORATORY At _____ Dollars Per CY | | |
| 207.3 | 370.00 CY | UNCLASSIFIED CHANNEL EXCAVATION At _____ Dollars Per CY | | |

| Item# | Quantity | Description | Unit Price | Amount |
|----------|--------------|---|------------|--------|
| 209.201 | 380.00 CY | GRANULAR BACKFILL (BRIDGE) (F) At _____ Dollars Per CY | | |
| 304.32 | 25.00 TON | CRUSHED GRAVEL FOR SHOULDER LEVELING At _____ Dollars Per TON | | |
| 500.0201 | 1.00 U | ACCESS FOR BRIDGE CONSTRUCTION At _____ Dollars Per U | | |
| 500.0202 | 1.00 U | ACCESS FOR BRIDGE CONSTRUCTION At _____ Dollars Per U | | |
| 503.101 | 1.00 U | WATER DIVERSION STRUCTURE At _____ Dollars Per U | | |
| 503.201 | 1.00 U | COFFERDAMS At _____ Dollars Per U | | |
| 503.202 | 1.00 U | COFFERDAMS At _____ Dollars Per U | | |
| 504.1 | 366.00 CY | COMMON BRIDGE EXCAVATION (F) At _____ Dollars Per CY | | |
| 504.2 | 273.00 CY | ROCK BRIDGE EXCAVATION At _____ Dollars Per CY | | |
| 508. | 105.00 CY | STRUCTURAL FILL At _____ Dollars Per CY | | |
| 520.12 | 38.00 CY | CONCRETE CLASS A, ABOVE FOOTINGS (F) At _____ Dollars Per CY | | |
| 520.213 | 66.00 CY | CONCRETE CLASS B, FOOTINGS (ON SOIL) (F) At _____ Dollars Per CY | | |

| Item# | Quantity | Description | Unit Price | Amount |
|-----------|-----------------|---|------------|--------|
| 520.32 | 10.00 CY | GROUTING VOIDS IN BACKFILL MATERIAL At _____ Dollars Per CY | | |
| 534.3 | 5.00 GAL | WATER REPELLENT (SILANE/SILOXANE) At _____ Dollars Per GAL | | |
| 538.2 | 10.00 SY | BARRIER MEMBRANE, PEEL AND STICK - VERTICAL SURFACES (F) At _____ Dollars Per SY | | |
| 541.4 | 44.00 LF | PVC WATERSTOPS, NH TYPE 4 (F) At _____ Dollars Per LF | | |
| 544. | 14,567.00 LB | REINFORCING STEEL (F) At _____ Dollars Per LB | | |
| 562.1 | 53.00 LF | SILICONE JOINT SEALANT (F) At _____ Dollars Per LF | | |
| 583.5 | 210.00 CY | RIPRAP, CLASS V At _____ Dollars Per CY | | |
| 585.3401 | 35.00 CY | SIMULATED STREAMBED MATERIAL At _____ Dollars Per CY | | |
| 593.411 | 350.00 SY | GEOTEXTILE; PERM CONTROL CL.1, NON-WOVEN At _____ Dollars Per SY | | |
| 602.41190 | 210.00 LF | CENTRIFUGALLY CAST CONCRETE LINER FOR 90" CMP At _____ Dollars Per LF | | |
| 603.00215 | 32.00 LF | 15" R.C. PIPE, 2000D At _____ Dollars Per LF | | |
| 603.33212 | 1.00 EA | 12" CORR. POLYETHYLENE END SECTION At _____ Dollars Per EA | | |

| Item# | Quantity | Description | Unit Price | Amount |
|-----------|-----------------|---|------------|-------------|
| 603.99012 | 70.00 LF | 12" TEMPORARY DRAINAGE PIPE At _____ Dollars Per LF | | |
| 606.012 | 15.00 EA | W6X9 STEEL POST REPLACEMENTS FOR BEAM GUARDRAIL POSTS At _____ Dollars Per EA | | |
| 606.0122 | 15.00 EA | W6X9 STEEL POST ASSEMBLIES FOR BEAM GUARDRAIL POSTS At _____ Dollars Per EA | | |
| 606.1254 | 1.00 U | BEAM GUARDRAIL (TERMINAL UNIT TYPE EAGRT, TL 3) (STEEL POST) At _____ Dollars Per U | | |
| 606.18001 | 350.00 LF | 31" W-BEAM GUARDRAIL WITH 8" OFFSET BLOCK (STEEL POST) At _____ Dollars Per LF | | |
| 606.34202 | 2.00 U | SINGLE FACED ASYMMETRICAL TRANSITION RAIL, RIGHT (STEEL POST) At _____ Dollars Per U | | |
| 606.417 | 400.00 LF | PORTABLE CONCRETE BARRIER FOR TRAFFIC CONTROL At _____ Dollars Per LF | | |
| 606.91 | 25.00 LF | RESETTING OR SETTING GUARDRAIL At _____ Dollars Per LF | | |
| 606.9513 | 4.00 U | TEMP. IMPACT ATTENUATION DEVICE (REDIRECTIVE), TEST LEVEL 3 At _____ Dollars Per U | | |
| 615.034 | 1.00 U | RELOCATING TRAFFIC SIGN, TYPE C At _____ Dollars Per U | | |
| 618.61 | 15,000.00 \$ | UNIFORMED OFFICERS WITH VEHICLE At _____ One and 0/100 Dollars Per \$ | \$1.00 | \$15,000.00 |
| 618.7 | 250.00 HR | FLAGGERS At _____ Dollars Per HR | | |

| Item# | Quantity | Description | Unit Price | Amount |
|----------|----------------|---|------------|--------|
| 619.1 | 1.00 U | MAINTENANCE OF TRAFFIC At _____ Dollars Per U | | |
| 619.25 | 2.00 U | PORTABLE CHANGEABLE MESSAGE SIGN At _____ Dollars Per U | | |
| 621.2 | 6.00 EA | RETROREFLECTIVE BEAM GUARDRAIL DELINEATOR At _____ Dollars Per EA | | |
| 621.31 | 4.00 EA | SINGLE DELINEATOR WITH POST At _____ Dollars Per EA | | |
| 621.32 | 1.00 EA | DOUBLE DELINEATOR WITH POST At _____ Dollars Per EA | | |
| 622.1 | 2.00 EA | STEEL WITNESS MARKERS At _____ Dollars Per EA | | |
| 632.0104 | 2,300.00 LF | RETROREFLECTIVE PAINT PAVE. MARKING, 4" LINE At _____ Dollars Per LF | | |
| 643.22 | 0.30 TON | FERTILIZER FOR REFERTILIZATION At _____ Dollars Per TON | | |
| 645.3 | 350.00 TON | EROSION STONE At _____ Dollars Per TON | | |
| 645.44 | 2,450.00 SY | TEMPORARY SLOPE STABILIZATION TYPE D (WILDLIFE FRIENDLY) At _____ Dollars Per SY | | |
| 645.512 | 1,100.00 LF | COMPOST SOCK FOR PERIMETER BERM At _____ Dollars Per LF | | |
| 645.52 | 50.00 LB | RYEGRASS FOR TEMPORARY EROSION CONTROL At _____ Dollars Per LB | | |

| Item# | Quantity | Description | Unit Price | Amount |
|---------------------|-----------------|--|------------|-------------|
| 645.531 | 1,100.00 LF | SILT FENCE At _____ Dollars Per LF | | |
| 645.7 | 1.00 U | STORM WATER POLLUTION PREVENTION PLAN At _____ Dollars Per U | | |
| 645.71 | 90.00 HR | MONITORING SWPPP AND EROSION AND SEDIMENT CONTROLS At _____ Dollars Per HR | | |
| 646.4 | 0.60 A | TURF ESTABLISHMENT WITH MULCH, TACKIFIERS AND HUMUS At _____ Dollars Per A | | |
| 670.104 | 2.00 U | TEMPORARY PORTABLE LIGHTING At _____ Dollars Per U | | |
| 692. | 1.00 U | MOBILIZATION At _____ Dollars Per U | | |
| 697.11 | 1.00 U | INVASIVE SPECIES CONTROL AND MANAGEMENT PLAN At _____ Dollars Per U | | |
| 697.31 | 1.00 U | PROJECT OPERATIONS PLAN At _____ Dollars Per U | | |
| 699. | 25,000.00 \$ | MISCELLANEOUS TEMPORARY EROSION AND SEDIMENT CONTROL At _____ One and 0/100 Dollars Per \$ | \$1.00 | \$25,000.00 |
| 1002.1 | 6,000.00 \$ | REPAIRS OR REPLACEMENTS AS NEEDED - BRIDGE STRUCTURES At _____ One and 0/100 Dollars Per \$ | \$1.00 | \$6,000.00 |
| 1010.15 | 10,000.00 \$ | FUEL ADJUSTMENT At _____ One and 0/100 Dollars Per \$ | \$1.00 | \$10,000.00 |
| Grand Total: | | | | |

Grand Total:

GRAND TOTAL MUST ALSO BE ENTERED ON THE COVER PAGE OF THE PROPOSAL

**Sample Proposal
NOT FOR BIDDING PURPOSES**

It is further proposed:

To execute the Contract and begin work within 10 days from the date specified in the "Notice to Proceed" and to prosecute said work so as to complete the Bridge Project and its appurtenances on or before October 26, 2018.

To furnish a Contract Bond in the amount of 100 per cent of the Contract award, as security for the construction and completion of the Bridge Project and its appurtenances in accordance with the Plans, Specifications and Contract. The Contractor's attention is called to section 103.05 of the Standard Specifications which reads, in part, as follows: "Unless specifically waived in the Proposal, upon execution of the Contract, the successful Bidder shall furnish the Department a surety bond or bonds equal to the sum of the Contract amount. The form of the bonds(s) shall be acceptable to the Department and the bonding Company issuing the bond(s) shall be licensed to transact business in the State of New Hampshire, and ..."

To certify that the Bidder, in accordance with the requirements of 103.06 and 108.01, intends to sublet, assign, sell, transfer or otherwise dispose of one or more portions of the work and (1) has contacted the appropriate listed disadvantaged businesses and afforded such disadvantaged businesses equal consideration with non-disadvantaged business for all work the Bidder currently proposes to sublet, assign, sell, transfer or otherwise dispose of, (2) may contact additional appropriate disadvantage businesses and will afford such businesses equal consideration with non-disadvantaged businesses for all work the Bidder in the future proposes to sublet, assign, sell, transfer or otherwise dispose of, and (3) will complete enclosed "DISADVANTAGED BUSINESS ENTERPRISE COMMITMENT FORM" and Letters of Intent for each disadvantaged business. The name of the person in the Bidder's organization who has been designated as the liaison officer to administer the disadvantaged business enterprise program is:

(To be completed by the Bidder)

To guarantee all of the work performed under this Contract to be done in accordance with the Specifications and in good and workmanlike manner, and to renew or repair any work which may be rejected, due to defective materials or workmanship, prior to final completion and acceptance of the project.

Enclosed herewith find certified check or bid bond in the amount of **5% OF THE BID TOTAL** made payable to the "Treasurer, State of New Hampshire," as a proposal guarantee which it is understood will be forfeited in the event the Contract is not executed, if awarded by the Department to the undersigned.

Certification Regarding Debarment, Suspension, and Other Responsibility Matters - Primary Covered Transactions.

(1). The prospective primary participant certifies to the best of its knowledge and belief, that it and all its principals: (a) Are not presently debarred, suspended, proposed for debarment, declared ineligible, or voluntarily excluded from covered transactions by any Federal department or agency; (b) Have not within a three-year period preceding this proposal been convicted of or had a civil judgment rendered against them for commission of fraud or a criminal offense in connection with obtaining, attempting to obtain, or performing a public (Federal, State or local) transaction or contract under a public transaction; violation of Federal or State antitrust statutes or commission of embezzlement, theft, forgery, bribery, falsification or destruction of records, making false statements, or receiving stolen property; (c) Are not presently indicted for or otherwise criminally or civilly charged by a governmental entity (Federal, State or local) with commission of any of the offenses enumerated in paragraph (1) (b) of this certification and (d) Have not within a three-year period proceeding this application/proposal had one or more public transactions (Federal, State or local) terminated for cause or default. (2). Where the prospective primary participant is unable to certify to any of the statements in this certification, such prospective participant shall attach an explanation to this proposal.

Contract Affidavit

I/We declare under penalty of perjury under the laws of the United States and the State of New Hampshire that, in accordance with the provisions of Title 23 USC, Section 112(c), have not either directly or indirectly entered into any agreement, participated in any collusion or otherwise taken any action in restraint of free competitive bidding in connection with this Proposal.

Dated: _____

(If a firm or individual)

Signature of Bidder _____

By _____

Address of Bidder _____

Names and addresses of members of the Firm:

(If a Corporation)

Signature of Bidder _____

Title _____

By _____

Business Address _____

Incorporated under the laws of the State of _____

Names of Officers:

President _____

Name

Address

Secretary _____

Name

Address

Treasurer _____

Name

Address

Note: See Subsection 102.07 for signature requirements.